

REPORT ON INSPECTION TO DETERMINE
COMPLIANCE WITH PCB REGULATIONS

BRC RUBBER & PLASTIC, INC.
589 SOUTH MAIN STREET
CHURUBUSCO, INDIANA 46723

PERFORMED BY:
GEORGE RITCHOTTE
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF LAND QUALITY
100 NORTH SENATE AVENUE
INDIANAPOLIS, INDIANA 46204

AS AUTHORIZED UNDER THE U.S. EPA ENVIRONMENTAL PERFORMANCE
PARTNERSHIP AGREEMENT

I. OBJECTIVES

The inspection was conducted to document the facility's handling, storage and disposal practices and to determine its compliance with the PCB Regulations, 40 CFR Part 761, as published in the Federal Register of May 31, 1979, and as amended.

II. COMPANY IDENTIFICATION

BRC Rubber & Plastics, Inc.
589 S. Main St.
Churubusco, IN 46723
EPA ID # IND005081526

RESPONSIBLE OFFICIAL
Mr. Greg Finch: President

III. DATE(S) OF INSPECTION

April 19, April 28, and May 16, 2017

IV. PARTICIPANTS

Company

Mr. Thomas Maher: Environmental Coordinator (April 28 & May 16, 2017)
Mr. Patrick DeLong: Facilities Manager (April 28 & May 16, 2017)
Mr. Matt Foster: Operations Manager (April 28 & May 16, 2017)
Mr. Martin Gaughan: Chief Chemist (April 28 & May 16, 2017)

IDEM

Mr. George Ritchotte: U.S. EPA Credentialed PCB Inspector, Industrial Waste Section
Ms. Lori Freeman: U.S. EPA Credentialed PCB Inspector, Industrial Waste Section
(April 28, 2017)
Mr. Rex Counterman: IDEM, Office of Water Quality
Mr. Paul Higginbotham: IDEM, Office of Water Quality (May 16, 2017)
Ms. Lynn Raisor: IDEM, Office of Water Quality (May 16, 2017)
Mr. Mark Stanifer: IDEM, Office of Water Quality (May 16, 2017)
Mr. Greg Glover: IDEM, Office of Water Quality (May 16, 2017)

Town of Churubusco

Mr. Robert Gray: Wastewater Treatment Superintendent (April 19, 2017)
Mr. Gordon Knot: Element Materials Technology, consultant for Town of Churubusco
WWTP (April 19, 2017)

V. COMPANY BACKGROUND [X] PCBs [] No PCBs discovered

{Please note: The following is a brief overview of the historic events that have occurred at this property regarding PCBs. Specific dates listed are based on historic summaries of information available at the time the summaries were written and may vary slightly from actual dates of occurrences.}

BRC Rubber & Plastics, Inc. (BRC) is a manufacturer of automotive rubber and plastic parts including, but not limited to, suspension bushing, steering column components, engine air management components, gaskets, wiring grommets, plastic automatic transmission components, and rubber bonded to metal components. Products are manufactured using various injection mold operations. BRC began operations at this location in approximately late 1985 or early 1986.

The property was formerly owned and occupied by Dana Companies, LLC (Dana). Dana was also a manufacturer of automotive parts. In November 1980, Dana submitted an application to the EPA for a Part A permit that would allow them to treat and store hazardous waste generated by the Plant. Dana didn't complete the RCRA permit process in a timely manner, so EPA initiated an enforcement action against Dana. A consent agreement was signed allowing Dana to operate as an interim status RCRA storage facility. Dana then attempted to withdraw the application as it believed that it was not subject to the storage permitting requirements based on the storage time allowances for generators. In January 1984, Dana notified the State of Indiana (the Indiana State Department of Health) that it had ceased operations at that location. In April 1985, the State of Indiana notified Dana that the company had to submit a closure plan for the property. The State of Indiana (it's unclear whether it was the Indiana State Department of Health environmental management program staff or the newly formed Indiana Department of Environmental Management {IDEM}) staff conducted an investigation at the property and found elevated levels of PCBs at the Plant.

Dana determined that the potential cause of this PCB contamination was from the use of heat transfer fluids, containing PCBs, which were used by the Plant between 1964 and 1972 to heat rubber injection presses. Remediation activities supposedly occurred at the Plant and other areas effected including a ww treatment discharge ditch and the city of Churubusco wastewater treatment plant system from 1986 through 1988.

RCRA corrective action activities discussions continued, and in 1988 IDEM sent notice to BRC directing them to submit a revised Part A application or to comply with interim status requirements. In March, 1990 EPA issued a complaint and compliance order to BRC directing them to cease all hazardous waste operations, comply with permitting application procedures, or submit appropriate closure plan. In May, 1992, EPA conducted a "visual site inspection" (VSI) (report issued in October, 1992) identifying twenty nine (29) solid waste management units and six (6) areas of concern (AOC), which EPA requested further investigation. Information is unclear, but it appeared that there was still a concern about the site still potentially having PCBs present. Shortly after litigation discussions began between BRC and Dana to determine responsibilities under RCRA. In 1996, BRC attempted to enter a newly created program within IDEM, Voluntary Remediation Program (VRP). In July, 1999, BRC was removed from the VRP by IDEM for failing to meet the program requirements. Because of concerns about contamination on the property, in April 2000, IDEM issued a Notice of Violation (NOV) to BRC due to levels of PCBs found on the site exceeded the VRP cleanup requirements.

Because of a court settlement agreement between Dana and BRC, Dana met with IDEM and signed an Agreed Order (AO) approved by IDEM on March 24, 2003. The AO required Dana to further investigate, and if necessary remediate, all areas identified in

EPA's VSI. Concerning PCBs, Dana was required to conduct remedial activities and obtain a cleanup of no greater than 1 ppm PCBs. During late 2003, Dana began remedial activities at the Plant, potentially concluding those activities in late 2005. Information pertaining to the remedial actions conducted was submitted to IDEM resulting in discussions and potentially minor additional remedial work being conducted at the Plant. According to IDEM records, the date the final remedy construction was completed was December 19, 2012. On February 19, 2013, IDEM signed the "RCRA Corrective Action Environmental Indicator RCRA Info Code (CA550) Certification of Documentation of Remedy Construction Complete.

VI. INSPECTION SUMMARY

Opening Conference

- A. The inspector met with company officials as indicated in Sections II-IV, presented TSCA Inspection Credentials, explained the purpose of the inspection, and presented for signature the TSCA Inspection Forms as indicated below:

☒ Notice of Inspection
☒ TSCA Confidentiality Notice

These documents are enclosed as a part of Attachment A, and were signed by Mr. Robert Gray (Town of Churubusco, WWTP Superintendent) {April 19, 2017 inspection}, Mr. Thom Maher (BRC Rubber & Plastic, Inc., Environmental Coordinator) {April 28, 2017 inspection}, and Mr. George Ritchotte (IDEM, U.S. EPA PCB Credentialed Inspector).

B. Circumstances Applicable to this inspection

<input checked="" type="checkbox"/> Disposal	<input checked="" type="checkbox"/> Processing
<input checked="" type="checkbox"/> Marking	<input type="checkbox"/> Distribution
<input checked="" type="checkbox"/> Storage	<input checked="" type="checkbox"/> Authorizations
<input type="checkbox"/> Manufacturing	<input checked="" type="checkbox"/> Recordkeeping
<input type="checkbox"/> None of the Above	

C. CITATION

☒ Not Applicable
☐ Citation issued on
☐ Response received on

D. Closing Conference

☒ The inspector explained the two possible outcomes of the inspection and

informed the company officials that a final determination and notification would be made by the Regional Office. The inspector also informed the company that, if no violations are found, they will not get a written acknowledgment from U.S. EPA. However, the company may telephone the U.S. EPA ninety (90) days after the inspection to confirm if an “in compliance” determination has been made.

- [X] The inspectors provided a Receipt for Samples/Documents collected during the inspection.

VII. SAMPLES/ PHOTOGRAPHS/ DOCUMENTS

[] None Taken

[X] See Attachments

VIII. ATTACHMENTS

1. Notice of Inspection, TSCA Inspection Confidentiality Notice, and Receipt for Samples and Documents for April 19, 2017 inspection. *{Attachment A}*
2. Notice of Inspection, TSCA Inspection Confidentiality Notice, and Receipt for Samples and Documents for April 28, 2017 inspection. *{Attachment B}*
3. Photo Log for April 19, 2017 inspection. *{Attachment C}*
4. Photo Log for April 28, 2017 inspection. *{Attachment D}*
5. EJScreen ACS Summary Report & EJScreen Report (BRC) *{Attachment E}*
6. Analytical information for April 19, 2017 inspection. *{Attachment F}*
7. Analytical information for April 28, 2017 inspection *{Attachment G}*
8. Analytical information for May 16, 2017 follow-up visit. *{Attachment H}*

IX. ENVIRONMENTAL JUSTICE FACTORS

A review of Environmental Justice (EJ) factors for the site was conducted. Maps and data from EJScreen detailing social, economic and health information were reviewed. Data from EJScreen is included as Attachment E to this report.

X. INSPECTOR'S COMMENTS

This inspection was conducted based on a complaint/notice that was submitted to the IDEM, Office of Water Quality from the Town of Churubusco (Whitley County, Indiana) (Town) WWTP Superintendent, Mr. Robert Gray. On about April 10, 2017, Mr. Gray contacted Mr. Rex Counterman, IDEM, Office of Water Quality, Water Compliance Branch (OWQ), and indicated that he may have an issue regarding PCBs in the city's wwtp sludge. According to Mr. Gray, sampling was being conducted in accordance with the land application permit issued by the IDEM, Office of Land Quality regarding PCBs. He indicated that he noticed what appeared to be a trend of increasing PCB concentration. The land application permit allows for the application of sludge that contains PCBs below 2 ppm. Concentrations were approaching that limit, and potentially one exceeded the limit. Mr. Gray also indicated that the Town contracts services with a local environmental company to assist in various sampling matters and that the Town utilized this business to attempt to locate the source of the potential PCB problem the Town may have. Testing was conducted at various location within the system where industrial customer's waters entered the Town's sewer system. Based on sample results, Mr. Gray believed the PCBs were coming from a local automotive parts manufacture BRC Rubber & Plastics, LLC (BRC). Mr. Gray was also aware and had basic information about the environmental issues at the property that BRC currently operates due to the past owners use of PCB oils.

Mr. Counterman contacted staff from the IDEM, Office of Land Quality (OLQ staff) for assistance with this potential issue. OLQ staff determined that verification sampling would need to be conducted to ensure that PCBs were present in the discharge from BRC prior to making contact with BRC.

On April 19, 2017, IDEM staff (OLQ and OWQ) conducted an inspection of the Town of Churubusco WWTP specifically to obtain samples from the manhole in which BRC's wastewaters enter the Town's system. Additionally, staff discussed options for management of the wwtp sludge if the material could not be land applied due to PCB content. Staff met with Mr. Gray at the wwtp to complete necessary inspection paperwork and to again allow Mr. Gray to explain his concerns and findings. After listening to Mr. Gray's concerns and findings, staff decided to travel to the BRC property area and obtain samples from the manhole.

The manhole in question was described by Mr. Gray as the Town of Churubusco WWTP, Manhole # S1178. Mr. Gray also indicated that BRC is the only customer that discharges at this location. Mr. Gray also indicated that the manhole was part of the "utility easement" on the BRC property, and the Town has access rights conduct business in that area.

Staff decided that multiple samples would be obtained, and determined that one (1) sample every approximately 15 minutes for one hour could be used to obtain make a representative determination of wastewaters being discharged by BRC. Staff also learned that the Town's local environmental consultant was also obtaining samples and had a 24-hour sampler set up approximately 24 hours prior and running already at the location.

Grab samples were obtained starting at 2:11 pm ET on April 19, using a dedicated plastic bailing cup at the end of a dedicated plastic pole. The contents of the cup was then placed in a 1 liter glass jar. Samples were obtained in this fashion at 2:36 pm, 2:52 pm, and finally

at 3:26 pm. Matrix spike and Matrix spike duplicate samples were also obtained during the second sampling time. A split sample from the 24-hour sampler was obtained prior to the grab sampling event. {See Attachment D for photographs of sampling location}

Staff concluded this inspection by completing the necessary inspection paperwork and indicating that after sample results were obtained, IDEM would be in contact with Mr. Gray to discuss the next step as necessary.

Samples were transported to Microbac Laboratory for analysis. The analytical data packet was received and reviewed by the IDEM, Office of Land Quality, Chemistry Section and determined to be acceptable for use. {See Attachment F for analytical data packet for this sampling event.} Sample results indicated the following:

Sample Number	Sample Description	Sample Time	PCB Concentration
OL1566	1 st sanitary water sample	2:11 pm	2.7 ug/L
OL1567*	2 nd sanitary water sample	2:36 pm	1.7 ug/L
OL1570	3 rd sanitary water sample	2:52 pm	5.0 ug/L
OL1571	4 th sanitary water sample	3:26 pm	48 ug/L
OL1572	24 hr sampler split sample	2:04 pm	6.4 ug/L

* Sample Numbers OL1568 and OL1569 were samples for matrix spike and matrix spike duplicates for Sample Number OL1567.

Based on these sample results, it was determined that an inspection at BRC should be conducted.

On the morning of April 28, 2017, staff contacted Mr. Thom Maher of BRC to make arrangements to conduct a PCB inspection that afternoon. Staff explained the events that lead to the decision to conduct the inspection and the sample results that were obtained. Mr. Maher indicated that he would need to speak with his management and possibly let the Dana Companies, LLC (Dana) representatives know so that they can be present for the inspection also. Staff conclude the call and waited for his response. Approximately 15 minutes later staff received a call from Mr. Maher and said that BRC representatives will be present and based on the line of questions, BRC might then contact Dana.

Staff arrived at BRC the afternoon of April 28, 2017. Staff again explained the reason for the inspection and the results obtained during the April 18 inspection/sampling event of the BRC discharge to the Town. Staff indicated that the primary reason for the inspection would be to determine the source of the PCBs and to possibly prevent the source materials from entering the discharge to the city. Mr. Maher and the other BRC representatives agree to provide staff a tour of the facility and to collect samples to determine potential sources.

Touring the facility, staff was able to obtain a basic understanding of the plant operations and the facility plumbing. Staff learned that in general, wastewaters are only generated from two areas: sanitary waste water and waters that are generated in the “mop sink.” According to facility personnel, the only other waters that are “plumbed” into the system are flush waters generated during the flushing of a newly installed water purification unit

that will provide highly filtered water for use in new injection mold equipment. Staff was informed that the flushing of this filter is conducted during the early morning hours approximately two (2) times a week currently.

Based on this tour, staff concluded that five (5) samples would be taken. Two of these samples would be obtained from the mop sink. One wipe sample of the sink basin surface and one solid sample from the solid materials observed in the sink. The third sample would be obtained from the secondary containment pan of one of the injection mold presses. Although this press appeared to be manufactured in 1986, because the press was manufactured in France, and it is unclear when the import ban for distribution in commerce of products containing 50 ppm or greater PCBs was established, staff was concerned that PCB oils may be present in the machine. The fourth sample would be obtained from the used oil collection container. The fifth sample would be taken to represent the potential of PCBs in items like floor caulking, paints, etc., and staff would sample the dust/sediment observed under a stair case located in the middle of the main production area.

All five (5) samples were obtained. Staff then concluded the inspection by completing the necessary inspection documents and indicated that as soon as results were obtained, contact would be made with the facility representatives.

Samples were transported to Microbac Laboratory for analysis. The analytical data packet was received and reviewed by the IDEM, Office of Land Quality, Chemistry Section and determined to be acceptable for use. {See Attachment F for analytical data packet for this sampling event.} Sample results indicated the following:

Sample Number	Sample Description	Sample Time	PCB Concentration
OL1577	Used oil from used oil container	3:20 pm	ND
OL1578	Used oil/solids from secondary containment pan under Press # 306	3:25 pm	2.4 mg/kg
OL1579	Sediment from mop sink	3:05 pm	7.2 mg/kg
OL1580	Sediment from under staircase	3:10 pm	26 mg/kg
OL1581	Wipe sample in mop sink basin	2:52 pm	ND

After reviewing the results and examining the components of each of the waste streams sampled, it appeared that the similar item present in each of the three streams which PCBs were detected was crumb rubber generated by the facility during the rubber molding process.

Staff then contacted BRC to share the results of this inspection/sampling event and made arrangements to revisit the facility to attempt to further identify the source of the PCB detections within the samples. Staff also suggested that the facility begin looking at the potential that the PCB detection results may be caused by another compound causing a “false positive” result due to the observed similarities found in the samples that tested positive for PCBs. Staff was very cautious not to make a claim regarding any specific source did contain PCBs

Several additional phone conversations occurred after this phone conversation to determine

if; the facility had obtained any information regarding a potential source of PCBs or information that might support the potential false positive results. Staff also requested updates on how the facility was planning to cease the discharge of PCBs to the Town.

On May 18, BRC representatives sent an email to staff providing a possible answer for the “false positive” potential. BRC indicated that they quite extensively use a rubber formulation (Compound # 131) that contains the ringed chlorinated portion that is similar to Diuron. *{Note: Staff learned that BRC does formulate their own rubber raw materials at another BRC plant located in Indiana.}* They also provided a screen shot from a book entitled Analytical Chemistry of PCBs, Second Edition, January 24, 1997 that discusses the potential for this Diuron to give a false positive.

Additional phone conversations occurred to obtain updates and to determine if BRC had plans to conduct PCB testing on this compound. Staff learned that BRC had no specific plans to conduct testing to determine if this compound may be causing the false positive in the testing results, therefore decided to revisit the plant to obtain samples.

On May 22, staff returned to the BRC to obtain those samples, and decided to obtain both cured and uncured portions of the Compound # 131. Upon arrival, staff was informed of another potential compound that was used quite often that may also provide a “false positive” test result for PCBs, Compound # 6469. Staff again inquired about the general volume usage of each of these compounds, to which BRC representatives indicated that both compounds were commonly used throughout the plant in most of the rubber injection mold machines, and that those compounds would make up the vast percentage of crumb rubber found throughout the plant.

A tour of the facility was then again provided allowing staff further understand the production area of the plant and to obtain solid samples of both cured and uncured Compound # 131 rubber and uncured Compound # 6469. Cured Compound # 6469 was not obtained because at the time of this visit no press was forming products using that rubber compound.

Samples were again transported to Microbac Laboratory for analysis. The analytical data packet was received and reviewed by the IDEM, Office of Land Quality, Chemistry Section and determined to be acceptable for use. *{See Attachment F for analytical data packet for this sampling event.}* Sample results indicated the following:

Sample Number	Sample Description	Sample Time	PCB Concentration
OL1589	Uncured Compound # 131	2:34 pm	ND
OL1590	Cured Compound # 131	2:39 pm	ND
OL1591	Uncured Compound # 6469	2:50 pm	ND

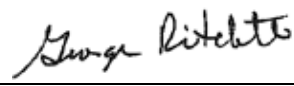
After receiving the sample results and data packet from the Chemistry Section, staff contacted Microbac Laboratory to determine exactly how each sample was prepared for extraction. Staff was attempting to determine how the solid samples were prepared for extraction. Staff was informed that, due to the gummy nature of the samples, they were not ground, but instead they were each cut into approximate 1mm or slightly larger size then

the appropriate amount was weighted out for the extraction procedure. Staff discussed this procedure with Chemistry Section staff to determine if the size cutting the laboratory completed would be sufficient to mimic the size of the rubber crumb particles observed in the samples where PCBs were detected that were obtained on April 28. Staff wanted to make sure that the overall surface area subjected to the extraction fluids for the samples obtained on the April 28 inspection and the May 22 return visit would be sufficiently similar to make a decision that these two rubber compounds were not the cause of the false positive.

After finalizing this decision, staff contacted BRC and informed them of the findings. Staff indicated that, without additional information from BRC, ideas regarding the PCB/false positive have been exhausted and the burden of establishing the source and/or source of false positive would now be the responsibility of BRC. Additionally, staff indicated that IDEM had collected samples resulting in a belief that the facility was discharging PCBs equal to or in excess of 3 ug/L (ppb) as prohibited by 40 CFR 761.50(a)(3). Staff learned that the facility was attempting to take another route to prevent the discharge of PCBs to the Town treatment works. BRC representatives indicated that they were making plans to reroute the plumbing leaving the plant and plan to continue discharging waters to the Town. They indicated that since IDEM did not find the source, they believe that the source of PCBs present in the discharge may still be historic contamination that may be remaining under the plant building that is seeping into the plumbing. However, they also planned on attempting to limit the type materials that are discharged to the Town. BRC has agreed to conduct testing routinely for PCBs to be allowed to continue discharging waters to the Town. It is staffs understanding that the testing results will be shared with the Town and IDEM, Office of Water Quality staff.

Staff requested that the facility still attempt to determine the source of the PCBs or identify the false positive to demonstrate compliance with the above mentioned federal regulation. Staff indicated that an official inspection report would not be generated and forwarded to EPA until after mid-August and gave BRC until August 15 to submit information regarding a source or potential false positive.

To date, no information has been received from BRC by staff (IDEM, Office of Land Quality, Industrial Waste Section).

Inspector: 
George Ritchotte

ATTACHMENT A



US ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT

NOTICE OF INSPECTION

1. INVESTIGATION IDENTIFICATION			3. FACILITY NAME
DATE 4/19/2017	INSPECTION NO. 11173	DAILY SEQ. NO. 601	Town of Chubbuck WWTP
2. INSPECTOR'S ADDRESS IDEM 100 W. Summit Ave Indpls IN 46204			4. FACILITY ADDRESS 9380 E SR 205 Chubbuck, IN 46723

For Internal EPA Use. Copies may be provided to recipient as acknowledgment of this notice.

REASON FOR INSPECTION

Under the authority of Section 11 of the Toxic Substances Control Act:

☒ For the purpose of inspecting (including taking samples, photographs, statements, and other inspection activities) an establishment, facility, or other premises in which chemical substances or mixtures, articles containing same are manufactured, processed, stored or held before or after their distribution in commerce (including records, files, papers, processes, controls, and facilities) and any conveyances being used to transport chemical substances, mixtures, or articles containing same in connection with their distribution in commerce (including records, files, papers, processes, controls, and facilities) bearing on whether the requirements of the Act are applicable to the chemical substances, mixtures, or articles within, or associated with, such premise or conveyance have been complied with.

☐ In addition, this inspection extends to (check appropriate blocks):

- | | |
|--|--|
| <input type="checkbox"/> A. Financial data | <input type="checkbox"/> D. Personnel data |
| <input type="checkbox"/> B. Sales data | <input type="checkbox"/> E. Research data |
| <input type="checkbox"/> C. Pricing data | |

The nature and extent of inspection of such data specified in A through E above is as follows:

INSPECTOR'S SIGNATURE <i>George A. Ritchie</i>		RECIPIENT'S SIGNATURE <i>R. E. Gray</i>	
NAME George Ritchie		NAME Robert E. Gray	
TITLE Sr. Env. Mgr	DATE SIGNED 4/19/2017	TITLE Superintendent	DATE SIGNED 4/19/17



US ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT
TSCA INSPECTION CONFIDENTIALITY NOTICE

1. INVESTIGATION IDENTIFICATION			4. FACILITY NAME
DATE 4/19/2017	Inspector No. 11173	Daily Seq No. 001	Town of Chumbusco WWTP
2. INSPECTOR'S NAME George Ritelwite			5. ADDRESS 9380 E SR205, Chumbusco, IN 46723
3. INSPECTOR'S ADDRESS EPA 100 N. Senate Ave Indpls IN			6. NAME OF CHIEF EXECUTIVE OFFICER
			7. TITLE

For Internal EPA Use. Copies may be provided to recipient as acknowledgment of this notice.

TO ASSERT A TSCA CONFIDENTIAL BUSINESS INFORMATION CLAIM

It is possible that EPA will receive public requests for release of the information obtained during the inspection of the facility cited above. Such requests will be handled by EPA in accordance with provisions of the Freedom of Information Act (FOIA), 5 USC 552; EPA regulations issued thereunder, 40 CFR, Part 2; and the Toxic Substances Control Act (TSCA), Section 14. EPA is required to make inspection data available in response to FOIA requests unless the EPA Administrator determines that the data is entitled to confidential treatment, or may be withheld from release under other exceptions of FOIA.

Any or all information collected by EPA during the inspection may be claimed as confidential if it relates to trade secrets, commercial, or financial matters that you consider to be confidential business information (CBI). If you assert a CBI claim, EPA will disclose the information only to the extent, and by means of the procedures set forth in the regulations (cited above) governing EPA's treatment of CBI. Among other things, the regulations require that EPA notify you in advance of publicly disclosing any information claimed as CBI.

A CBI claim may be asserted at any time prior to, during, or after the information is collected. This notice was developed by EPA to assist you in asserting a CBI claim. If it is more convenient for you to assert a CBI claim on your own stationary or by making the individual documents or samples "TSCA confidential business information," it is not necessary for you to use this notice. The inspector will be glad to answer any questions you may have regarding EPA's CBI procedures.

While you may claim any collected information or sample as CBI, such claims are not likely to be upheld if they are challenged unless the information meets the following criteria:

1. Your company has taken measures to protect the confidentiality of the information and it intends to continue to take such measures.

2. The information is not, and has not been, reasonably obtainable without your company's consent by other persons (other than governmental bodies), or by use of legitimate means (other than discovery based on showing of special need in a judicial or quasi-judicial proceeding).

3. The information is not publicly available elsewhere.

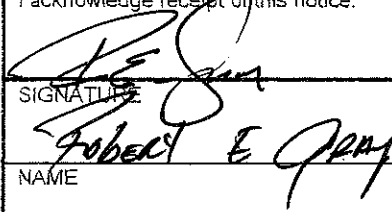
4. Disclosure of the information would cause substantial harm to your company's competitive position.

At the completion of the inspection, you will be given a receipt for all documents, samples, and other materials collected. At that time, you may make claims that some or all of the information is CBI.

If you are not authorized by your company to assert a CBI claim, this notice will be sent by certified mail, along with the receipt for documents, samples, and other materials to the Chief Executive Officer of your company within 2 days of this date. The Chief Executive Officer must return a statement specifying any information which should receive CBI treatment.

The statement from the Chief Executive Officer should be addressed to:

and mailed by registered, return-receipt requested mail within 7 calendar days of receipt of this notice. Claims may be made at any time after the inspection, but the inspection data will not be entered into the TSCA/CBI security system until an official confidentiality claim is made. The data will be handled under EPA's routine security system unless and until a claim is made.

TO BE COMPLETED BY FACILITY OFFICIAL RECEIVING THIS NOTICE I acknowledge receipt of this notice:		If there is no one on the premise who is authorized to make CBI claims for this facility, a copy of this notice and other inspection materials will be sent to the company's Chief Executive Officer. If there is another official who should also receive this information, please designate below.
SIGNATURE 		
NAME Robert E. Gray		NAME
TITLE Superintendent		TITLE
DATE SIGNED 4/19/17		ADDRESS



U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT

RECEIPT FOR SAMPLES AND DOCUMENTS

1. INVESTIGATION IDENTIFICATION			2. COMPANY NAME
DATE 4/19/2017	INSPECTION NO. 11/73	DAILY SEQ. NO. 001	Town of Chubbuck WWTP
3. INSPECTOR ADDRESS FORUM 100 N. Senate Ave Indpls IN 46204			4. COMPANY ADDRESS 9380 ESR 205 Chubbuck, IN 46723

For internal EPA use. Copies of this form may be provided to recipient as acknowledgement of the documents and samples of chemical substances and/or mixtures described below collected in connection with the administration and enforcement of the Toxic Substances Control Act.

RECEIPT OF DOCUMENT(S) AND/OR SAMPLE(S) DESCRIBED IS HEREBY ACKNOWLEDGED:

NO.	DESCRIPTION
1	drawing of city sewer system in vicinity of BRC Rubber & Plastic
1	info on gallons/month BRC Rubber & Plastic discharges to city
1	sets of analytical information for sampling events conducted by on 3/24, 3/27, 3/28, 3/29, and 3/30 of 2017
8	samples collected on 4/19/2017 including 6 grab samples (1ms, 1msd) and 1 24 hr composite sample from sampler from Element
2	photographs: 1 sample location and 1 of sampler

OPTIONAL: samples obtained by WWTP were collected by Element

DUPLICATE OR SPLIT SAMPLES: REQUESTED AND PROVIDED ☐ NOT REQUESTED ☐

INSPECTOR SIGNATURE George A. Ritchie		CLAIMANT SIGNATURE Robert E. Gray	
NAME George Ritchie		NAME Robert E. Gray	
TITLE Sr. Env. Mgr	DATE SIGNED 4/19/2017	TITLE Superintendent	DATE SIGNED 4/19/17

ATTACHMENT B



US ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT

NOTICE OF INSPECTION

1. INVESTIGATION IDENTIFICATION			3. FACILITY NAME
DATE 4/28/17	INSPECTION NO. 11173	DAILY SEQ. NO. 001	BRC Rubber & plastics, Inc
2. INSPECTOR'S ADDRESS 100 N. Santa Ave Indpls, In			4. FACILITY ADDRESS 589 S. Main St. Churubusco, IN 46723

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Under the authority of Section 11 of the Toxic Substances Control Act:

- ☒ For the purpose of inspecting (including taking samples, photographs, statements, and other inspection activities) an establishment, facility, or other premises in which chemical substances or mixtures, articles containing same are manufactured, processed, stored or held before or after their distribution in commerce (including records, files, papers, processes, controls, and facilities) and any conveyances being used to transport chemical substances, mixtures, or articles containing same in connection with their distribution in commerce (including records, files, papers, processes, controls, and facilities) bearing on whether the requirements of the Act are applicable to the chemical substances, mixtures, or articles within, or associated with, such premise or conveyance have been complied with.

☐ In addition, this inspection extends to (check appropriate blocks):

- | | |
|--|--|
| <input type="checkbox"/> A. Financial data | <input type="checkbox"/> D. Personnel data |
| <input type="checkbox"/> B. Sales data | <input type="checkbox"/> E. Research data |
| <input type="checkbox"/> C. Pricing data | |

The nature and extent of inspection of such data specified in A through E above is as follows:

INSPECTOR'S SIGNATURE 		RECIPIENT'S SIGNATURE 	
NAME George Ritchie		NAME Thom Mater	
TITLE Sr. Env. Mgr.	DATE SIGNED 4/28/2017	TITLE Enviro Coordinator	DATE SIGNED 4-28-2017



US ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT
TSCA INSPECTION CONFIDENTIALITY NOTICE

1. INVESTIGATION IDENTIFICATION			4. FACILITY NAME
DATE 4/28/87	Inspection No. 11173	Daily Seq No. 001	BRC Rubber and Plastics, Inc.
2. INSPECTOR'S NAME George Ritchotte			5. ADDRESS 589 South main St. Charabusco, In 46723
3. INSPECTOR'S ADDRESS 100 N. Senate Ave. Indpls, In 46204			6. NAME OF CHIEF EXECUTIVE OFFICER
			7. TITLE

For Internal EPA Use. Copies may be provided to recipient as acknowledgment of this notice.

TO ASSERT A TSCA CONFIDENTIAL BUSINESS INFORMATION CLAIM

It is possible that EPA will receive public requests for release of the information obtained during the inspection of the facility cited above. Such requests will be handled by EPA in accordance with provisions of the Freedom of Information Act (FOIA), 5 USC 552; EPA regulations issued thereunder, 40 CFR, Part 2; and the Toxic Substances Control Act (TSCA), Section 14. EPA is required to make inspection data available in response to FOIA requests unless the EPA Administrator determines that the data is entitled to confidential treatment, or may be withheld from release under other exceptions of FOIA.

Any or all information collected by EPA during the inspection may be claimed as confidential if it relates to trade secrets, commercial, or financial matters that you consider to be confidential business information (CBI). If you assert a CBI claim, EPA will disclose the information only to the extent, and by means of the procedures set forth in the regulations (cited above) governing EPA's treatment of CBI. Among other things, the regulations require that EPA notify you in advance of publicly disclosing any information claimed as CBI.

A CBI claim may be asserted at any time prior to, during, or after the information is collected. This notice was developed by EPA to assist you in asserting a CBI claim. If it is more convenient for you to assert a CBI claim on your own stationary or by making the individual documents or samples "TSCA confidential business information," it is not necessary for you to use this notice. The Inspector will be glad to answer any questions you may have regarding EPA's CBI procedures.

While you may claim any collected information or sample as CBI, such claims are not likely to be upheld if they are challenged unless the information meets the following criteria:

1. Your company has taken measures to protect the confidentiality of the information and it intends to continue to take such measures.

2. The information is not, and has not been, reasonably obtainable without your company's consent by other persons (other than governmental bodies), or by use of legitimate means (other than discovery based on showing of special need in a judicial or quasi-judicial proceeding).

3. The information is not publicly available elsewhere.


4. Disclosure of the information would cause substantial harm to your company's competitive position.

At the completion of the inspection, you will be given a receipt for all documents, samples, and other materials collected. At that time, you may make claims that some or all of the information is CBI.

If you are not authorized by your company to assert a CBI claim, this notice will be sent by certified mail, along with the receipt for documents, samples, and other materials to the Chief Executive Officer of your company within 2 days of this date. The Chief Executive Officer must return a statement specifying any information which should receive CBI treatment.

The statement from the Chief Executive Officer should be addressed to:

and mailed by registered, return-receipt requested mail within 7 calendar days of receipt of this notice. Claims may be made at any time after the inspection, but the inspection data will not be entered into the TSCA/CBI security system until an official confidentiality claim is made. The data will be handled under EPA's routine security system unless and until a claim is made.

TO BE COMPLETED BY FACILITY OFFICIAL RECEIVING THIS NOTICE I acknowledge receipt of this notice: 		If there is no one on the premise who is authorized to make CBI claims for this facility, a copy of this notice and other inspection materials will be sent to the company's Chief Executive Officer. If there is another official who should also receive this information, please designate below.	
SIGNATURE Thom Macher		NAME	
NAME Enviro Coordinator		TITLE	
TITLE	DATE SIGNED 4-28-87	ADDRESS	



US ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT

RECEIPT FOR SAMPLES AND DOCUMENTS

1. INVESTIGATION IDENTIFICATION			2. COMPANY NAME
DATE 4/28/17	INSPECTION NO. 11173	DAILY SEQ. NO. 001	BRC Rubber + Plastics, Inc.
3. INSPECTOR ADDRESS 100 N. Senate Ave. Indpls, In 46204			4. COMPANY ADDRESS 589 South main St. Churubusco, In 46723

For internal EPA use. Copies of this form may be provided to recipient as acknowledgement of the documents and samples of chemical substances and/or mixtures described below collected in connection with the administration and enforcement of the Toxic Substances Control Act.

RECEIPT OF DOCUMENT(S) AND/OR SAMPLE(S) DESCRIBED IS HEREBY ACKNOWLEDGED:

NO.	DESCRIPTION
14	photographs of man hole, press, sink, used oil storage tank and location of
5	samples of: 2 from sink, one wipe one solid; dust under stairs, solid; used oil from used oil tank, oil under Press 306.

OPTIONAL:

N/A

DUPLICATE OR SPLIT SAMPLES: REQUESTED AND PROVIDED ☐

NOT REQUESTED ☐

INSPECTOR SIGNATURE

CLAIMANT SIGNATURE

NAME

NAME

TITLE


DATE SIGNED


TITLE

DATE SIGNED

ATTACHMENT C


Photo Log


	Number	1
	Description	
	Photographer	George Ritchotte (IDEM)
	Facility Name	Town of Churubusco WWTP (BRC Rubber & Plastic) inlet pipe to city POTW
	Photo Date	April 19, 2017
	Others	Rex Counterman (IDEM, OWQ) Robert Gray (Town of Churubusco, WWTP Superintendent) unnamed employee of Town of Churubusco WWTP Gordon Knot (Element Materials Technology, consultant for Town of Churubusco WWTP)

	Number	2
	Description	
	Photographer	George Ritchotte (IDEM)
	Facility Name	Town of Churubusco WWTP (BRC Rubber & Plastic) inlet pipe to city POTW
	Photo Date	April 19, 2017
	Others	Rex Counterman (IDEM, OWQ) Robert Gray (Town of Churubusco, WWTP Superintendent) unnamed employee of Town of Churubusco WWTP Gordon Knot (Element Materials Technology, consultant for Town of Churubusco WWTP)

ATTACHMENT D

Photo Log

	Number	1
	Description	
	Photographer	George Ritchotte (IDEM)
	Facility Name	BRC Rubber & Plastics, Inc. 589 South Main Street Churubusco, IN 46723
	Photo Date	April 28, 2017
	Others	Lori Freeman (IDEM), Rex Counterman (IDEM), Thom Mayer (BRC), Martin Gaughan (BRC), Matt Foster (BRC)


	Number	2
	Description	
	Photographer	George Ritchotte (IDEM)
	Facility Name	BRC Rubber & Plastics, Inc. 589 South Main Street Churubusco, IN 46723
	Photo Date	April 28, 2017
	Others	Lori Freeman (IDEM), Rex Counterman (IDEM), Thom Mayer (BRC), Martin Gaughan (BRC), Matt Foster (BRC)




Number	3
Description	
Photographer	George Ritchotte (IDEM)
Facility Name	BRC Rubber & Plastics, Inc. 589 South Main Street Churubusco, IN 46723
Photo Date	April 28, 2017
Others	Lori Freeman (IDEM), Rex Counterman (IDEM), Thom Mayer (BRC), Martin Gaughan (BRC), Matt Foster (BRC)



Number	4
Description	
Photographer	George Ritchotte (IDEM)
Facility Name	BRC Rubber & Plastics, Inc. 589 South Main Street Churubusco, IN 46723
Photo Date	April 28, 2017
Others	Lori Freeman (IDEM), Rex Counterman (IDEM), Thom Mayer (BRC), Martin Gaughan (BRC), Matt Foster (BRC)

	Number	5
	Description	
	Photographer	George Ritchotte (IDEM)
	Facility Name	BRC Rubber & Plastics, Inc. 589 South Main Street Churubusco, IN 46723
	Photo Date	April 28, 2017
	Others	Lori Freeman (IDEM), Rex Counterman (IDEM), Thom Mayer (BRC), Martin Gaughan (BRC), Matt Foster (BRC)

	Number	6
	Description	
	Photographer	George Ritchotte (IDEM)
	Facility Name	BRC Rubber & Plastics, Inc. 589 South Main Street Churubusco, IN 46723
	Photo Date	April 28, 2017
	Others	Lori Freeman (IDEM), Rex Counterman (IDEM), Thom Mayer (BRC), Martin Gaughan (BRC), Matt Foster (BRC)



Number	7
Description	
Photographer	George Ritchotte (IDEM)
Facility Name	BRC Rubber & Plastics, Inc. 589 South Main Street Churubusco, IN 46723
Photo Date	April 28, 2017
Others	Lori Freeman (IDEM), Rex Counterman (IDEM), Thom Mayer (BRC), Martin Gaughan (BRC), Matt Foster (BRC)



Number	8
Description	
Photographer	George Ritchotte (IDEM)
Facility Name	BRC Rubber & Plastics, Inc. 589 South Main Street Churubusco, IN 46723
Photo Date	April 28, 2017
Others	Lori Freeman (IDEM), Rex Counterman (IDEM), Thom Mayer (BRC), Martin Gaughan (BRC), Matt Foster (BRC)



Number	9
Description	
Photographer	George Ritchotte (IDEM)
Facility Name	BRC Rubber & Plastics, Inc. 589 South Main Street Churubusco, IN 46723
Photo Date	April 28, 2017
Others	Lori Freeman (IDEM), Rex Counterman (IDEM), Thom Mayer (BRC), Martin Gaughan (BRC), Matt Foster (BRC)

ATTACHMENT E

Location: User-specified point center at 41.223349, -85.314365

Ring (buffer): 1-mile radius

Description:

Summary of ACS Estimates		2010 - 2014	
Population		1,591	
Population Density (per sq. mile)		698	
Minority Population		50	
% Minority		3%	
Households		723	
Housing Units		762	
Housing Units Built Before 1950		174	
Per Capita Income		29,771	
Land Area (sq. miles) (Source: SF1)		2.28	
% Land Area		100%	
Water Area (sq. miles) (Source: SF1)		0.00	
% Water Area		0%	
		2010 - 2014 ACS Estimates	Percent MOE (±)
Population by Race			
Total		1,591	100% 239
Population Reporting One Race		1,566	98% 303
White		1,552	98% 231
Black		0	0% 11
American Indian		3	0% 17
Asian		7	0% 11
Pacific Islander		0	0% 11
Some Other Race		4	0% 22
Population Reporting Two or More Races		25	2% 27
Total Hispanic Population		13	1% 28
Total Non-Hispanic Population		1,578	
White Alone		1,541	97% 233
Black Alone		0	0% 11
American Indian Alone		3	0% 17
Non-Hispanic Asian Alone		7	0% 11
Pacific Islander Alone		0	0% 11
Other Race Alone		2	0% 11
Two or More Races Alone		25	2% 27
Population by Sex			
Male		841	53% 155
Female		750	47% 128
Population by Age			
Age 0-4		102	6% 46
Age 0-17		330	21% 83
Age 18+		1,261	79% 217
Age 65+		185	12% 93

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available.

Source: U.S. Census Bureau, American Community Survey (ACS) 2010 - 2014.

Location: User-specified point center at 41.223349, -85.314365

Ring (buffer): 1-mile radius

Description:

	2010 - 2014 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	1,074	100%	211
Less than 9th Grade	54	5%	117
9th - 12th Grade, No Diploma	47	4%	35
High School Graduate	477	44%	113
Some College, No Degree	346	32%	89
Associate Degree	95	9%	48
Bachelor's Degree or more	150	14%	62
Population Age 5+ Years by Ability to Speak English			
Total	1,489	100%	238
Speak only English	1,477	99%	214
Non-English at Home ¹⁺²⁺³⁺⁴	12	1%	24
¹ Speak English "very well"	12	1%	24
² Speak English "well"	0	0%	11
³ Speak English "not well"	0	0%	11
⁴ Speak English "not at all"	0	0%	11
³⁺⁴ Speak English "less than well"	0	0%	16
²⁺³⁺⁴ Speak English "less than very well"	0	0%	11
Linguistically Isolated Households*			
Total	0	0%	11
Speak Spanish	0	0%	11
Speak Other Indo-European Languages	0	0%	11
Speak Asian-Pacific Island Languages	0	0%	11
Speak Other Languages	0	0%	11
Households by Household Income			
Household Income Base	723	100%	129
< \$15,000	81	11%	95
\$15,000 - \$25,000	84	12%	49
\$25,000 - \$50,000	188	26%	98
\$50,000 - \$75,000	172	24%	97
\$75,000 +	198	27%	65
Occupied Housing Units by Tenure			
Total	723	100%	129
Owner Occupied	569	79%	103
Renter Occupied	154	21%	123
Employed Population Age 16+ Years			
Total	1,306	100%	216
In Labor Force	923	71%	165
Civilian Unemployed in Labor Force	50	4%	40
Not In Labor Force	383	29%	102

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2010 - 2014.

*Households in which no one 14 and over speaks English "very well" or speaks English only.

EJSCREEN ACS Summary Report



Location: User-specified point center at 41.223349, -85.314365

Ring (buffer): 1-mile radius

Description:

	2010 - 2014 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	1,489	100%	238
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2010 - 2014.

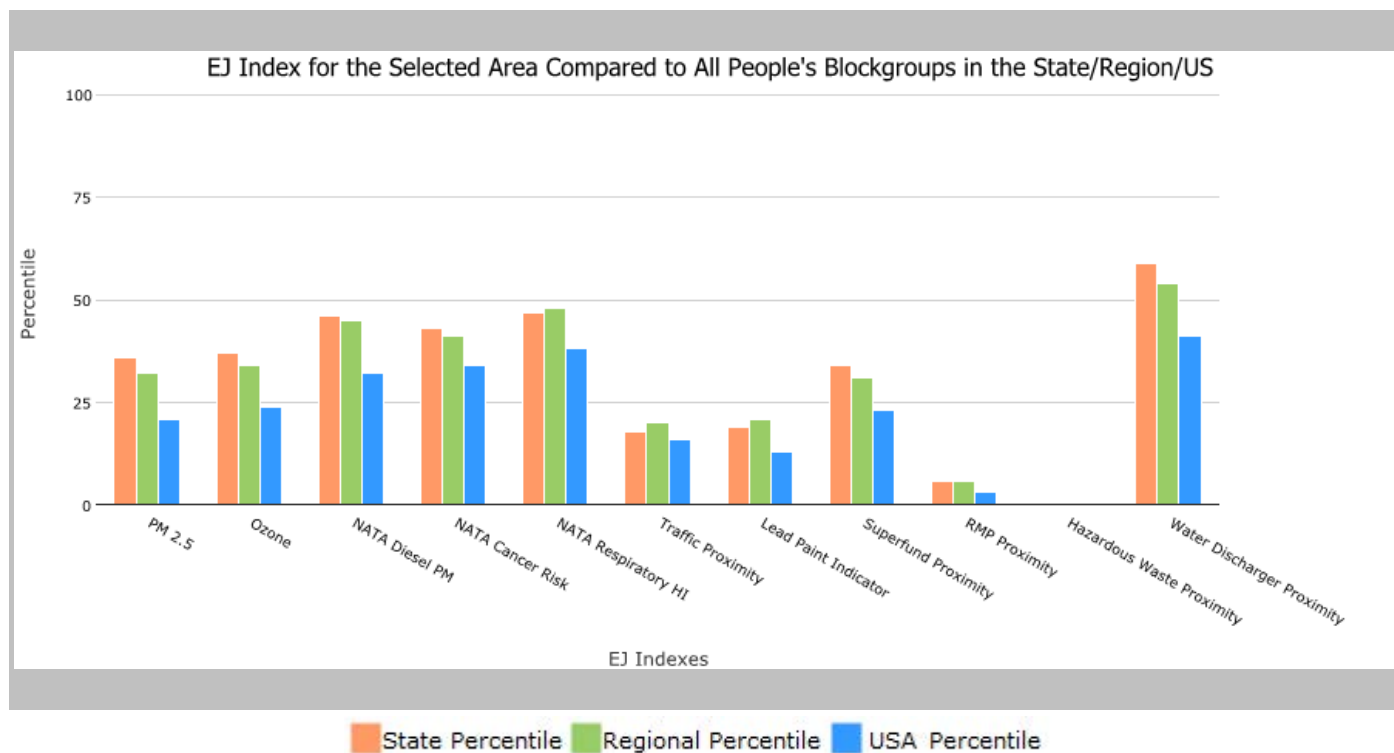
*Population by Language Spoken at Home is available at the census tract summary level and up.

1 mile Ring Centered at 41.223349,-85.314365, INDIANA, EPA Region 5

Approximate Population: 1,591

Input Area (sq. miles): 3.14

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	36	32	21
EJ Index for Ozone	37	34	24
EJ Index for NATA* Diesel PM	46	45	32
EJ Index for NATA* Air Toxics Cancer Risk	43	41	34
EJ Index for NATA* Respiratory Hazard Index	47	48	38
EJ Index for Traffic Proximity and Volume	18	20	16
EJ Index for Lead Paint Indicator	19	21	13
EJ Index for Superfund Proximity	34	31	23
EJ Index for RMP Proximity	6	6	3
EJ Index for Hazardous Waste Proximity ⁺	N/A	N/A	N/A
EJ Index for Water Discharger Proximity	59	54	41



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

1 mile Ring Centered at 41.223349,-85.314365, INDIANA, EPA Region 5

Approximate Population: 1,591

Input Area (sq. miles): 3.14



August 14, 2017

✚ Digitized Point

1:2,257
0 0.0175 0.035 0.07 mi
0 0.03 0.06 0.12 km
Image courtesy of the Indiana Map © 2017 Microsoft Corporation

Sites reporting to EPA

Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0
National Pollutant Discharge Elimination System (NPDES)	0

EJSCREEN Report (Version 2016)



1 mile Ring Centered at 41.223349,-85.314365, INDIANA, EPA Region 5

Approximate Population: 1,591

Input Area (sq. miles): 3.14

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	10.9	11	38	10.6	57	9.32	84
Ozone (ppb)	50.3	51.2	29	50.3	46	47.4	63
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	0.428	0.835	21	0.931	<50th	0.937	<50th
NATA* Cancer Risk (lifetime risk per million)	26	34	6	34	<50th	40	<50th
NATA* Respiratory Hazard Index	0.82	1.4	10	1.7	<50th	1.8	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	160	250	65	370	63	590	59
Lead Paint Indicator (% Pre-1960 Housing)	0.35	0.36	59	0.39	52	0.3	65
Superfund Proximity (site count/km distance)	0.068	0.16	48	0.12	56	0.13	54
RMP Proximity (facility count/km distance)	1	0.52	85	0.51	85	0.43	89
Hazardous Waste Proximity* (facility count/km distance)	N/A	0.09	N/A	0.11	N/A	0.11	N/A
Water Discharger Proximity (facility count/km distance)	0.065	0.34	7	0.31	11	0.31	15
Demographic Indicators							
Demographic Index	13%	27%	20	29%	22	36%	13
Minority Population	3%	19%	22	24%	17	37%	8
Low Income Population	22%	35%	30	33%	36	35%	33
Linguistically Isolated Population	0%	2%	63	2%	58	5%	44
Population With Less Than High School Education	9%	12%	46	11%	54	14%	46
Population Under 5 years of age	6%	6%	54	6%	57	6%	55
Population over 64 years of age	12%	14%	42	14%	41	14%	46

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

+ The hazardous waste environmental indicator and the corresponding EJ index will appear as N/A if there are no hazardous waste facilities within 50 km of a selected location.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

ATTACHMENT F

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
INDIANAPOLIS

OFFICE MEMORANDUM

Date: May 18, 2017

To: George Ritchotte
Industrial Waste Section

Thru: Steve Buckel

5/22/17

From: Sandra Roberts
Chemistry Services Section

5-18-17

Subject: Analytical Results for Churubusco Sewage Plant & Ancillary Piping
Churubusco, IN, Whitley County
AI #55270
Sampled: April 19, 2017
Sample Numbers: OL1566-OL1572 (Open Pipes and 24-Hour Sampler Set Up)
Microbac

The analytical results for the samples identified above have been validated according to the quality criteria contained in the Laboratory Services Contract (RFP 13-83) and Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) Third Edition, and its updates. Based on the evaluation, it has been determined that the results are acceptable for use. Reasons that data are qualified as estimated or unusable are explained below.

General Comments:

The purpose of this event was to sample the waste water from the BRC Rubber & Plastic facility from open pipes within a concrete sealed bottom manhole and 24-Hour Sampler Set Up with the Town of Churubusco Waste Water Treatment Plant (WWTP) plumbing system. The collected samples were analyzed for PCBs.

Sampling Quality Assurance/Quality Control:

Field documentation did allow for interpretation of the data. The samples were grab samples and the sampling procedure included a pole with plastic sampler and 1-Liter glass jars.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). Field duplicate samples were collected from the waste water at the 24-hour sampler set up on-site. The waste water field duplicate samples for this study were not in good agreement for Aroclor 1248 and Total PCBs. Results for Aroclor 1248 and Total PCBs in the waste water samples are estimated.

Field blanks (trip and/or equipment) are used to identify sample contamination resulting from sampling equipment, sample containers, chemical preservatives, and the handling and transportation of samples. No trip blank sample was collected since no VOCs were analyzed. No equipment blank was collected and the level of residual contamination could not be determined. Therefore, the results are considered estimated.

Laboratory Quality Assurance/Quality Control:

The laboratory performed all QA/QC measures necessary to validate the analytical results for this sampling event. The data was determined to be valid. Based on the validation of the analytical results, the following comments and/or qualifications are made regarding the data:

PCBs

Samples were analyzed for PCBs by EPA Method 608.

No qualifiers were identified.

Results:

The Aroclor 1248 and Total PCBs results for OL1570, OL1571, and OL1572 for waste water collected from the open pipes in the manholes and 24-Hour Sampler Set Up, exceeded the 3 ppb Action Level. The attached summary pages show the specific parameters that were detected in the waste water samples based on review of the field and laboratory QA/QC.

Conclusions:

The data are usable for the overall project goal.

Attachment

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

SITE AND SAMPLING INFORMATION

Site Name:

Site Number:

Location:

Date Sampled:

Date Reported:

Sample Numbers:

Lab:

Push Button to Print Page:

Sample #		Type/ID#
Lab	IDEM	

RCRA Metals & Primary Standards

Metals Secondary Standards

General Chemical Analysis

Volatile Organic Analysis

Semi-volatile Organic Analysis

PCBs/Pesticides/Herbicides

TCLP Metals

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

PCBs

Waste Water

Site Name: Churubusco Sewage Plant & Ancillary Piping
AI Number: 55270
Location: Churubusco, IN, Whitley County
Date Sampled: April 19, 2017
Date Reported: April 21, 2017
Sample Numbers: OL1566-OL1572
Lab: Microbac

UNITS: mg/L

Sample #		Type/ID#	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
Lab	IDEM	MDLs	0.24 to 1.5	0.18 to 1.2	0.066 to 0.43	0.035 to 0.23	0.02 to 0.13	0.071 to 0.46	0.15 to 0.95	0.091 to 0.59	0.13 to 0.82	0.25 to 1.6
3 ppb Action Level												
17D1149-01	OL1566	Field Duplicate of OL1572 **					2.7 ^ **					2.7 ^ **
17D1149-02	OL1567	Open Pipes in Manhole					1.7					1.7
17D1140-03	OL1570	Open Pipes in Manhole					5					5
17D1140-04	OL1571	Open Pipes in Manhole					48					48
17D1140-05	OL1572	24-Hour Sampler Set Up					6.4 ^					6.4 ^

* BLANK (Type indicated)

Empty Box indicates NON-DETECTABLE

Bold = Above the 3 ppb Action Level

** FIELD DUPLICATE

NR = NOT RUN

NA=NOT AVAILABLE

^ Estimated based on poor agreement in the field duplicate sample results

Metals Analysis

Site Name:
Site Number:
Location:
Date Sampled:
Date Reported:
Sample Numbers:
Lab:

Soil / Sediment / Sludge

UNITS: **mg/kg**

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Metals Analysis

Site Name:	
Site Number:	
Location:	
Date Sampled:	
Date Reported:	
Sample Numbers:	
Lab:	

Water

UNITS: mg/L

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Metals Analysis

Site Name:

Site Number:

Location:**Date Sampled:**

Date Reported:

Sample Numbers:

Lab:

Soil / Sediment / Sludge

UNITS: mg/kg

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

General Chemical Analysis

Site Name:
Site Number:
Location:
Date Sampled:
Date Reported:
Sample Numbers:
Lab:

Water

UNITS: mg/L

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above Respective Action Level

General Chemical Analysis

Site Name:
Site Number:
Location:
Date Sampled:
Date Reported:
Sample Numbers:
Lab:

Soil / Sediment / Sludge

UNITS: **mg/kg**

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above Respective Action Level

Volatile Organic Analysis

Site Name:
Site Number:
Location:
Date Sampled:
Date Reported:
Sample Numbers:
Lab:

Water

UNITS: ug/L

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

Volatile Organic Analysis

Site Name:
Site Number:
Location:
Date Sampled:
Date Reported:
Sample Numbers:
Lab:

Water

UNITS: ug/L

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Volatile Organic Analysis

Site Name:
Site Number:
Location:
Date Sampled:
Date Reported:
Sample Numbers:
Lab:

Soil / Sediment / Sludge

UNITS: ug/kg

[illegible]

* BLANK (Type indicated)

**** FIELD DUPLICATE**

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

Volatile Organic Analysis

Site Name:
Site Number:
Location:
Date Sampled:
Date Reported:
Sample Numbers:
Lab:

Soil / Sediment / Sludge

UNITS: ug/kg

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Volatile Organic Analysis

Site Name:	
Site Number:	
Location:	
Date Sampled:	
Date Reported:	
Sample Numbers:	
Lab:	

Soil / Sediment / Sludge

UNITS: ug/kg

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Semi-Volatile Organic Analysis

Site Name:
Site Number:
Location:
Date Sampled:
Date Reported:
Sample Numbers:
Lab:

Water

UNITS: ug/L

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

UNITS: ug/L

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

Semi-Volatile Organic Analysis

UNITS: ug/L

[illegible]

Bold = Above RISC Industrial Default Closure Level

Semi-Volatile Organic Analysis

UNITS: ug/kg

* BLANK (Type indicated)	Empty Box indicates NON-DETECTABLE	Bold = Above RISC Residential Default Closure Level
** FIELD DUPLICATE	NR = NOT RUN NA=NOT AVAILABLE	Bold = Above RISC Industrial Default Closure Level

UNITS: ug/kg

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level

UNITS: ug/kg

Bold = Above RISC Industrial Default Closure Level

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

PCBs/Pesticides/Herbicides

Site Name:
Site Number:
Location:
Date Sampled:
Date Reported:
Sample Numbers:
Lab:

Water

UNITS: ug/L

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE
NR = NOT RUN NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level
Bold = Above RISC Industrial Default Closure Level

PCBs/Pesticides/Herbicides

UNITS: ug/kg

* BLANK (Type indicated)	Empty Box indicates NON-DETECTABLE	Bold = Above RISC Residential Default Closure Level
** FIELD DUPLICATE	NR = NOT RUN NA=NOT AVAILABLE	Bold = Above RISC Industrial Default Closure Level

Toxicity Characteristic Leaching Procedure

Site Name:

Site Number:

Location:

Date Sampled:

Date Reported:

Sample Numbers:

Lab:

UNITS: **mg/L**

[illegible]

* BLANK (Type indicated)

** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE

NR = NOT RUN

NA=NOT AVAILABLE

Bold = Above RISC Residential Default Closure Level

Bold = Above RISC Industrial Default Closure Level



April 21, 2017

Indiana Department of Environmental Management
OLQ, 100 N. Senate Ave., Room N1101
Indianapolis, IN 46204-2251

Work Order No.: 17D1149

Re: OL1566 - OL1572

Dear David Harrison:

Microbac Laboratories, Inc. - Chicagoland Division received 5 sample(s) on 4/20/2017 12:27:00PM for the analyses presented in the following report as Work Order 17D1149.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Donna Ruokonen, Managing Director, at donna.ruokonen@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Kristen Gehlbach
Senior Project Manager

Microbac Laboratories, Inc.

5713 W. 85th Street | Indianapolis, IN 46278 | 800.466.5577 p | 317.872.1375 p | 317.872.1379 f | www.microbac.com

**WORK ORDER SAMPLE SUMMARY****Date:** *Friday, April 21, 2017***Client:** Indiana Department of Environmental Management**Project:** OL1566 - OL1572**Lab Order:** 17D1149

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
17D1149-01	OL1566		04/19/2017 14:11	4/20/2017 12:27:00PM
17D1149-02	OL1567		04/19/2017 14:36	4/20/2017 12:27:00PM
17D1149-03	OL1570		04/19/2017 14:52	4/20/2017 12:27:00PM
17D1149-04	OL1571		04/19/2017 15:26	4/20/2017 12:27:00PM
17D1149-05	OL1572		04/19/2017 14:04	4/20/2017 12:27:00PM

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Analytical Results

Date: Friday, April 21, 2017

Client: Indiana Department of Environmental Management

Client Project: OL1566 - OL1572

Client Sample ID: OL1566

Sample Description:

Matrix: Aqueous

Work Order/ID: 17D1149-01

Sampled: 04/19/2017 14:11

Received: 04/20/2017 12:27

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA 608 Rev 7/95					Analyst: PJK				
Polychlorinated Biphenyls					Prep Date/Time: 04/21/2017 05:49				
Aroclor 1016	dilj	A	ND	0.24	0.51		µg/L	1	04/21/2017 9:33
Aroclor 1221	dilj	A	ND	0.18	0.51		µg/L	1	04/21/2017 9:33
Aroclor 1232	dilj	A	ND	0.066	0.51		µg/L	1	04/21/2017 9:33
Aroclor 1242	dilj	A	ND	0.035	0.51		µg/L	1	04/21/2017 9:33
Aroclor 1248	dilj	A	2.7	0.020	0.51		µg/L	1	04/21/2017 9:33
Aroclor 1254	dilj	A	ND	0.071	0.51		µg/L	1	04/21/2017 9:33
Aroclor 1260	dilj	A	ND	0.15	0.51		µg/L	1	04/21/2017 9:33
Aroclor 1262	l	A	ND	0.091	0.51		µg/L	1	04/21/2017 9:33
Aroclor 1268	l	A	ND	0.13	0.51		µg/L	1	04/21/2017 9:33
Surr: Decachlorobiphenyl		S	32.5		25.7-116		%REC	1	04/21/2017 9:33
Surr: Tetrachloro-m-xylene		S	55.0		39.7-130		%REC	1	04/21/2017 9:33
Total PCB's	lj	M	2.7	0.25	0.51		µg/L	1	04/21/2017 9:33

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Analytical Results

Date: Friday, April 21, 2017

Client: Indiana Department of Environmental Management
Client Project: OL1566 - OL1572
Client Sample ID: OL1567
Sample Description:
Matrix: Aqueous

Work Order/ID: 17D1149-02
Sampled: 04/19/2017 14:36
Received: 04/20/2017 12:27

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA 608 Rev 7/95					Analyst: PJK				
Polychlorinated Biphenyls					Prep Date/Time: 04/21/2017 05:49				
Aroclor 1016	dilj	A	ND	0.25	0.53		µg/L	1	04/21/2017 9:52
Aroclor 1221	dilj	A	ND	0.19	0.53		µg/L	1	04/21/2017 9:52
Aroclor 1232	dilj	A	ND	0.069	0.53		µg/L	1	04/21/2017 9:52
Aroclor 1242	dilj	A	ND	0.037	0.53		µg/L	1	04/21/2017 9:52
Aroclor 1248	dilj	A	1.7	0.021	0.53		µg/L	1	04/21/2017 9:52
Aroclor 1254	dilj	A	ND	0.074	0.53		µg/L	1	04/21/2017 9:52
Aroclor 1260	dilj	A	ND	0.15	0.53		µg/L	1	04/21/2017 9:52
Aroclor 1262	l	A	ND	0.096	0.53		µg/L	1	04/21/2017 9:52
Aroclor 1268	l	A	ND	0.13	0.53		µg/L	1	04/21/2017 9:52
Surr: Decachlorobiphenyl		S	47.5		25.7-116		%REC	1	04/21/2017 9:52
Surr: Tetrachloro-m-xylene		S	60.0		39.7-130		%REC	1	04/21/2017 9:52
Total PCB's	lj	M	1.7	0.27	0.53		µg/L	1	04/21/2017 9:52

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Analytical Results

Date: Friday, April 21, 2017

Client: Indiana Department of Environmental Management
Client Project: OL1566 - OL1572
Client Sample ID: OL1570
Sample Description:
Matrix: Aqueous

Work Order/ID: 17D1149-03
Sampled: 04/19/2017 14:52
Received: 04/20/2017 12:27

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA 608 Rev 7/95					Analyst: PJK				
Polychlorinated Biphenyls					Prep Date/Time: 04/21/2017 05:49				
Aroclor 1016	dilj	A	ND	0.27	0.57		µg/L	1	04/21/2017 10:11
Aroclor 1221	dilj	A	ND	0.20	0.57		µg/L	1	04/21/2017 10:11
Aroclor 1232	dilj	A	ND	0.074	0.57		µg/L	1	04/21/2017 10:11
Aroclor 1242	dilj	A	ND	0.040	0.57		µg/L	1	04/21/2017 10:11
Aroclor 1248	dilj	A	5.0	0.023	0.57		µg/L	1	04/21/2017 10:11
Aroclor 1254	dilj	A	ND	0.080	0.57		µg/L	1	04/21/2017 10:11
Aroclor 1260	dilj	A	ND	0.16	0.57		µg/L	1	04/21/2017 10:11
Aroclor 1262	l	A	ND	0.10	0.57		µg/L	1	04/21/2017 10:11
Aroclor 1268	l	A	ND	0.14	0.57		µg/L	1	04/21/2017 10:11
Surr: Decachlorobiphenyl		S	55.0		25.7-116		%REC	1	04/21/2017 10:11
Surr: Tetrachloro-m-xylene		S	70.0		39.7-130		%REC	1	04/21/2017 10:11
Total PCB's	lj	M	5.0	0.28	0.57		µg/L	1	04/21/2017 10:11

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Analytical Results

Date: Friday, April 21, 2017

Client: Indiana Department of Environmental Management
Client Project: OL1566 - OL1572
Client Sample ID: OL1571
Sample Description:
Matrix: Aqueous

Work Order/ID: 17D1149-04
Sampled: 04/19/2017 15:26
Received: 04/20/2017 12:27

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA 608 Rev 7/95					Analyst: PJK				
Polychlorinated Biphenyls					Prep Date/Time: 04/21/2017 05:49				
Aroclor 1016	dilj	A	ND	1.5	3.3		µg/L	5	04/21/2017 11:11
Aroclor 1221	dilj	A	ND	1.2	3.3		µg/L	5	04/21/2017 11:11
Aroclor 1232	dilj	A	ND	0.43	3.3		µg/L	5	04/21/2017 11:11
Aroclor 1242	dilj	A	ND	0.23	3.3		µg/L	5	04/21/2017 11:11
Aroclor 1248	dilj	A	48	0.13	3.3		µg/L	5	04/21/2017 11:11
Aroclor 1254	dilj	A	ND	0.46	3.3		µg/L	5	04/21/2017 11:11
Aroclor 1260	dilj	A	ND	0.95	3.3		µg/L	5	04/21/2017 11:11
Aroclor 1262	l	A	ND	0.59	3.3		µg/L	5	04/21/2017 11:11
Aroclor 1268	l	A	ND	0.82	3.3		µg/L	5	04/21/2017 11:11
Surr: Decachlorobiphenyl		S	37.5		25.7-116		%REC	5	04/21/2017 11:11
Surr: Tetrachloro-m-xylene		S	62.5		39.7-130		%REC	5	04/21/2017 11:11
Total PCB's	lj	M	48	1.6	1.6		µg/L	5	04/21/2017 11:11

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Analytical Results

Date: Friday, April 21, 2017

Client: Indiana Department of Environmental Management
Client Project: OL1566 - OL1572
Client Sample ID: OL1572
Sample Description:
Matrix: Aqueous

Work Order/ID: 17D1149-05
Sampled: 04/19/2017 14:04
Received: 04/20/2017 12:27

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA 608 Rev 7/95					Analyst: PJK				
Polychlorinated Biphenyls					Prep Date/Time: 04/21/2017 05:49				
Aroclor 1016	dilj	A	ND	0.24	0.51		µg/L	1	04/21/2017 10:52
Aroclor 1221	dilj	A	ND	0.18	0.51		µg/L	1	04/21/2017 10:52
Aroclor 1232	dilj	A	ND	0.066	0.51		µg/L	1	04/21/2017 10:52
Aroclor 1242	dilj	A	ND	0.036	0.51		µg/L	1	04/21/2017 10:52
Aroclor 1248	dilj	A	6.4	0.020	0.51		µg/L	1	04/21/2017 10:52
Aroclor 1254	dilj	A	ND	0.071	0.51		µg/L	1	04/21/2017 10:52
Aroclor 1260	dilj	A	ND	0.15	0.51		µg/L	1	04/21/2017 10:52
Aroclor 1262	l	A	ND	0.092	0.51		µg/L	1	04/21/2017 10:52
Aroclor 1268	l	A	ND	0.13	0.51		µg/L	1	04/21/2017 10:52
Surr: Decachlorobiphenyl		S	27.5		25.7-116		%REC	1	04/21/2017 10:52
Surr: Tetrachloro-m-xylene		S	52.5		39.7-130		%REC	1	04/21/2017 10:52
Total PCB's	lj	M	6.4	0.26	0.51		µg/L	1	04/21/2017 10:52

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FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
 b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
 b* = Detected in the associated method Blank at a concentration greater than half the RL
 CFU = Colony forming units
 D = Dilution performed on sample
 DF = Dilution Factor
 g = Gram
 E = Value above quantitation range
 H = Analyte was prepared and/or analyzed outside of the analytical method holding time
 I = Matrix Interference
 J = Analyte concentration detected between RL and MDL (Metals / Organics)
 LOD = Limit of Detection
 LOQ = Limit of Quantitation
 m3 = Meters cubed
 MDL = Method Detection Limit
 mg/Kg = Milligrams per Kilogram (ppm)
 mg/L = Milligrams per Liter (ppm)
 NA = Not Analyzed
 ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
 NR = Not Recovered
 R = RPD outside accepted recovery limits
 RL = Reporting Limit
 S = Spike recovery outside recovery limits
 Surr = Surrogate
 U = Undetected
 > = Greater than
 < = Less than
 % = Percent
 * = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
 I = Internal Standard
 M = Summation Analyte
 S = Surrogate
 T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank	ICSA = Interference Check Standard "A"
DUP = Method Duplicate	ICSAB = Interference Check Standard "AB"
BS = Method Blank Spike	BSD = Method Blank Spike Duplicate
MS = Matrix Spike	MSD = Matrix Spike Duplicate
ICB = Initial Calibration Blank	ICV = Initial Calibration Verification
CCB = Continuing Calibration Blank	CCV = Continuing Calibration Verification
CRL = Client Required Reporting Limit	OPR = Ongoing Precision and Recovery Standard
PDS = Post Digestion Spike	SD = Serial Dilution
QCS = Quality Control Standard	

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

- ^d Illinois EPA drinking water, wastewater and solid waste analysis (#200064)
- ⁱ Kansas Dept Health & Env. NELAP (#E-10397)
- ^j Kentucky Wastewater Laboratory Certification Program (#90147)
- ^l North Carolina DENR NPDES effluent, surface water (#597)



COOLER INSPECTION

Client Name: Indiana Department of Environmental Management

Date: Friday, April 21, 2017

Date/Time Received: 04/20/2017 12:27

Work Order Number: 17D1149

Received by: Nicole Rainwater

Checklist completed by: 4/20/2017 1:17:00PM | Nicole Rainwater

Reviewed by: 4/21/2017 | KG

Carrier Name: Microbac

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 2.0° C

After-Hour Arrival?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Shipping container/cooler in good condition?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample containers?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
COC present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included sufficient client identification?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included sufficient sample collector information?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included a sample description?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC agrees with sample labels?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC identified the appropriate matrix?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included date of collection?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included time of collection?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC identified the appropriate number of containers?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Sample containers intact?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
All samples received within holding time?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
If the samples are preserved, are the preservatives identified?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	

If No, adjusted by: _____

COC included the requested analyses?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC signed when relinquished and received?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Samples received on ice?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Samples properly preserved?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Voa vials for aqueous samples have zero headspace?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>

Cooler Comments: Per G Ritchotte, MS/MSD belong to sample OL1567. KSG

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
17D1149-01	OL1566	ICOC - enforcement samples - rush - concentrate down to 0.5mL to reach requested RLs-RUSH
17D1149-02	OL1567	ICOC - enforcement samples - rush - concentrate down to 0.5mL to reach requested RLs-RUSH
17D1149-03	OL1570	ICOC - enforcement samples - rush - concentrate down to 0.5mL to reach requested RLs-RUSH
17D1149-04	OL1571	ICOC - enforcement samples - rush - concentrate down to 0.5mL to reach requested RLs-RUSH
17D1149-05	OL1572	ICOC - enforcement samples - rush - concentrate down to 0.5mL to reach requested RLs-RUSH

Microbac Laboratories, Inc.



Please Send Report to:

IDEM
OLQ Chemistry Section
Attn: QA Officer
MC 66-20 IGCN N1101
100 N Senate Avenue
Indianapolis, IN 46204-2251
www.idem.IN.gov

Print Name: George Ritchotte

Sample Date(s):
April 19, 2017

Signature: George R. Schmitt

(2A-2C) SAMPLE INFORMATION			(2D) COUNTS				(2E-2F) ANALYSES REQUESTED								(2G) COMMENTS	(2H-2J) DATE & TIME				
Laboratory Control Number (Lab Use)	IDEM Sample Number	Matrix or Sample Type	Glass Bottles	Plastic Bottles	40 ml Vials	Other											Date	Time	AM	PM
								PCBs												
	OL1566/1	WATER	✓				✓										4/19/17	2:15		✓
	OL1567/1	WATER	✓				✓										4/19/17	2:36		✓
	OL1568/1	WATER	✓				✓							Sample for matrix spike			4/19/17	2:37		✓
	OL1569/1	WATER	✓				✓							sample for matrix spike dup			4/19/17	2:38		✓
	OL1570/1	WATER	✓				✓										4/19/17	2:52		✓
	OL1571/1	WATER	✓				✓										4/19/17	3:26		✓
	OL1572/1	WATER	✓				✓										4/19/17	2:04		✓
														Note: Sanitary Sewer water. May contain human excrement						

(3) REQUIRED TURNAROUND TIME (with full documentation)			
30 days	14 days	7 days	2 days

(4) COMMENTS
Action level is 0.3 ppb PCBs


RUSH!


FOR LABORATORY USE ONLY:

Cooler Temp:	Sample Condition:
--------------	-------------------

(5) TRANSFER OF CUSTODY - I certify that I received the above samples.

Relinquished by: Sign Reza G. W. [Signature]

Received by:  Sign

Relinquished by:  Sign

Received by: _____ Sign _____

Date	Time
------	------

4-20-17	11:25 AM / PM
---------	------------------

4-20-17	13:27 AM / (PM)
---------	--------------------

(6) LABORATORY RECEIPT OF SAMPLES

I certify that I received the above samples. After recording these samples in the official logbook, they will remain in the custody of competent lab personnel or be secured in a locked area at all times.

Received by: _____ Sign _____

Laboratory:

Address:

Date	Time
------	------

	AM / PM
--	---------

(7) DISTRIBUTION: PINK COPY - IDEM Sampler YELLOW COPY - Lab (Keep) WHITE COPY - Lab (To be Returned to IDEM with Data Package)

10/06 Revision



LEVEL IV CLP-LIKE
QA/QC DATA PACKAGE

CLIENT:	Indiana Department of Environmental Management
PROJECT:	OL1566 - OL1572
LAB WORKORDER:	17D1149
DATE PACKAGE ISSUED:	4/24/2017

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CLIENT: Indiana Department of Environmental Management
PROJECT: OL1566 - OL1572
LAB WORKORDER: 17D1149
CHAIN-OF-CUSTODY: IDEM

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PCB CASE NARRATIVE

Case Narrative PCB Analysis

Client: Indiana Department of Environmental Management

Project: OL1566 – OL1572

Laboratory #: 17D1149

Four aqueous samples were received on 4/20/2017 for analysis and reporting in accordance with our Level IV protocol. The samples were received in acceptable physical condition. The shipping container and sample container did not contain custody seals. The chain of custody did not identify the appropriate number of containers. The samples were analyzed for Polychlorinated Biphenyls using EPA Method 608.

The samples were collected on 4/19/2017. The samples were extracted on 4/21/2017 and analyzed on 4/21/2017. The samples were not extracted and analyzed within the prescribed maximum allowable holding time without exception.

The required instrument calibrations and quality control tests were performed and the acceptance criteria met without exception. For PCB analysis, multi-point calibration curves were established for Aroclor 1016 and Aroclor 1260. A single-point calibration was established for Aroclor 1248. Aroclor identification was performed by pattern matching a minimum of three peaks per Aroclor. The CCV standards met acceptance criteria without exception.

Surrogate compounds are spiked into each sample to evaluate the extraction and analysis efficiency. One of the two surrogate compounds is required to meet the acceptance criteria. The surrogates in the environmental sample met the accuracy criteria without exception.

See the report narrative and QC summary report for specific batch and matrix quality control information. Matrix evaluation was performed on the OL 1567 [16D1149-02] sample. The acceptance criteria were met without exception.

Sample results labeled with a “J” qualifier are results which are above the MDL and below the MRL.

This Case Narrative was prepared by Matthew Sheehy, QA Specialist.

PCB HT SUMMARY

HOLDING TIME SUMMARY

EPA 608 Rev 7/95

Laboratory: Microbac Laboratories, Inc. - Chicagoland

SDG: 17D1149

Client: IDEM - Indianapolis, IN

Project: OL - OL

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
OL1566	04/19/17 14:11	04/20/17 12:27	04/21/17 05:49	2.00	7.00	04/21/17 09:33	0.16	40.00	
OL1567	04/19/17 14:36	04/20/17 12:27	04/21/17 05:49	2.00	7.00	04/21/17 09:52	0.17	40.00	
OL1570	04/19/17 14:52	04/20/17 12:27	04/21/17 05:49	2.00	7.00	04/21/17 10:11	0.18	40.00	
OL1571	04/19/17 15:26	04/20/17 12:27	04/21/17 05:49	2.00	7.00	04/21/17 11:11	0.22	40.00	
OL1572	04/19/17 14:04	04/20/17 12:27	04/21/17 05:49	2.00	7.00	04/21/17 10:52	0.21	40.00	

PCB FORM I: RESULTS AND RAW DATA

ORGANIC ANALYSIS DATA SHEET

EPA 608 Rev 7/95

OL1566

Laboratory: Microbac Laboratories, Inc. - Chicagoland SDG: 17D1149
 Client: IDEM - Indianapolis, IN Project: OL - OL
 Matrix: Aqueous Laboratory ID: 17D1149-01 File ID: E17D2105.D
 Sampled: 04/19/17 14:11 Prepared: 04/21/17 05:49 Analyzed: 04/21/17 09:33
 Solids: Preparation: 40CFR136 Initial/Final: 990 ml / 5 ml
 Batch: B101502 Sequence: S034341 Calibration: UNASSIGNED Instrument: ECD-3

CAS NO.	COMPOUND	DILUTION	CONC. (µg/L)	Q
12674-11-2	Aroclor 1016	1	0.51	U
11104-28-2	Aroclor 1221	1	0.51	U
11141-16-5	Aroclor 1232	1	0.51	U
53469-21-9	Aroclor 1242	1	0.51	U
12672-29-6	Aroclor 1248	1	2.7	
11097-69-1	Aroclor 1254	1	0.51	U
11096-82-5	Aroclor 1260	1	0.51	U
37324-23-5	Aroclor 1262	1	0.51	U
11100-14-4	Aroclor 1268	1	0.51	U
	Total PCB's	1	2.7	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2105.D Vial: 4
Acq On : 21 Apr 2017 9:33 am Operator: PJK
Sample : 17D1149-01 Inst : ECD3
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 21 13:07 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
Title : ECD#3-COL A-CLP2-AR1248
Last Update : Mon Apr 17 15:43:47 2017
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\E17D13\E17D1314.D
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

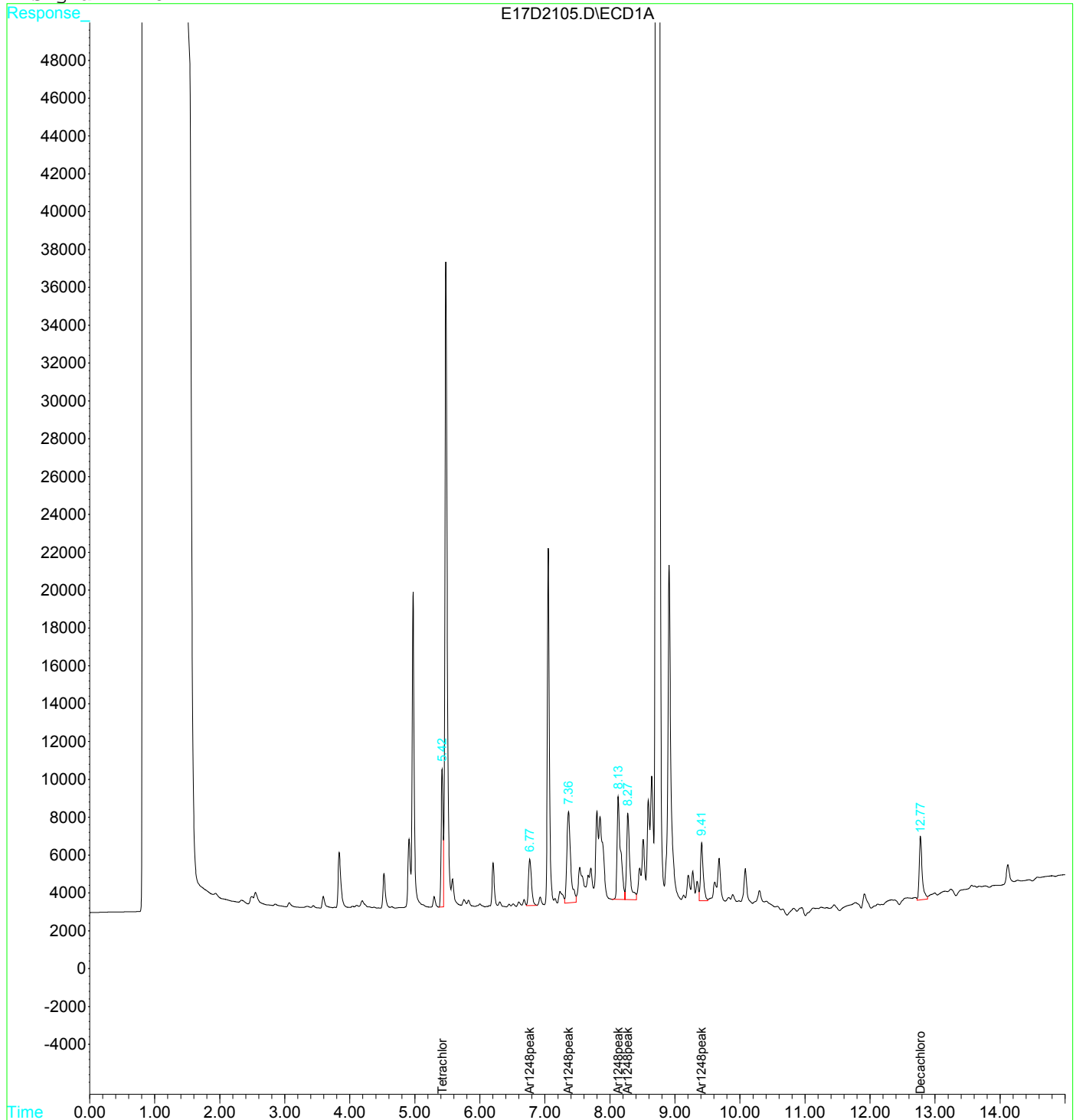
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	147383	0.022 ug/ml
Spiked Amount 0.020	Recovery	=	110.00%
2) S Decachlorobiphenyl	12.78	104922	0.013 ug/ml
Spiked Amount 0.020	Recovery	=	65.00%
Target Compounds			
3) Ar1248peak1	6.77	79370	0.557 ug/ml
4) Ar1248peak2	7.36	198234	0.593 ug/ml
5) Ar1248peak3	8.13	202249	0.524 ug/ml
6) Ar1248peak4	8.28	156848	0.516 ug/ml
7) Ar1248peak5	9.41	91064	0.524 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2105.D Vial: 4
 Acq On : 21 Apr 2017 9:33 am Operator: PJK
 Sample : 17D1149-01 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:07 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
 Title : ECD#3-COL A-CLP2-AR1248
 Last Update : Mon Apr 17 15:43:47 2017
 Response via : Single Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D21\E17D2105.D Vial: 4
Acq On : 21 Apr 2017 9:33 am Operator: PJK
Sample : 17D1149-01 Inst : ECD3
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 21 13:00 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
Last Update : Fri Apr 14 14:22:46 2017
Response via : Initial Calibration
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

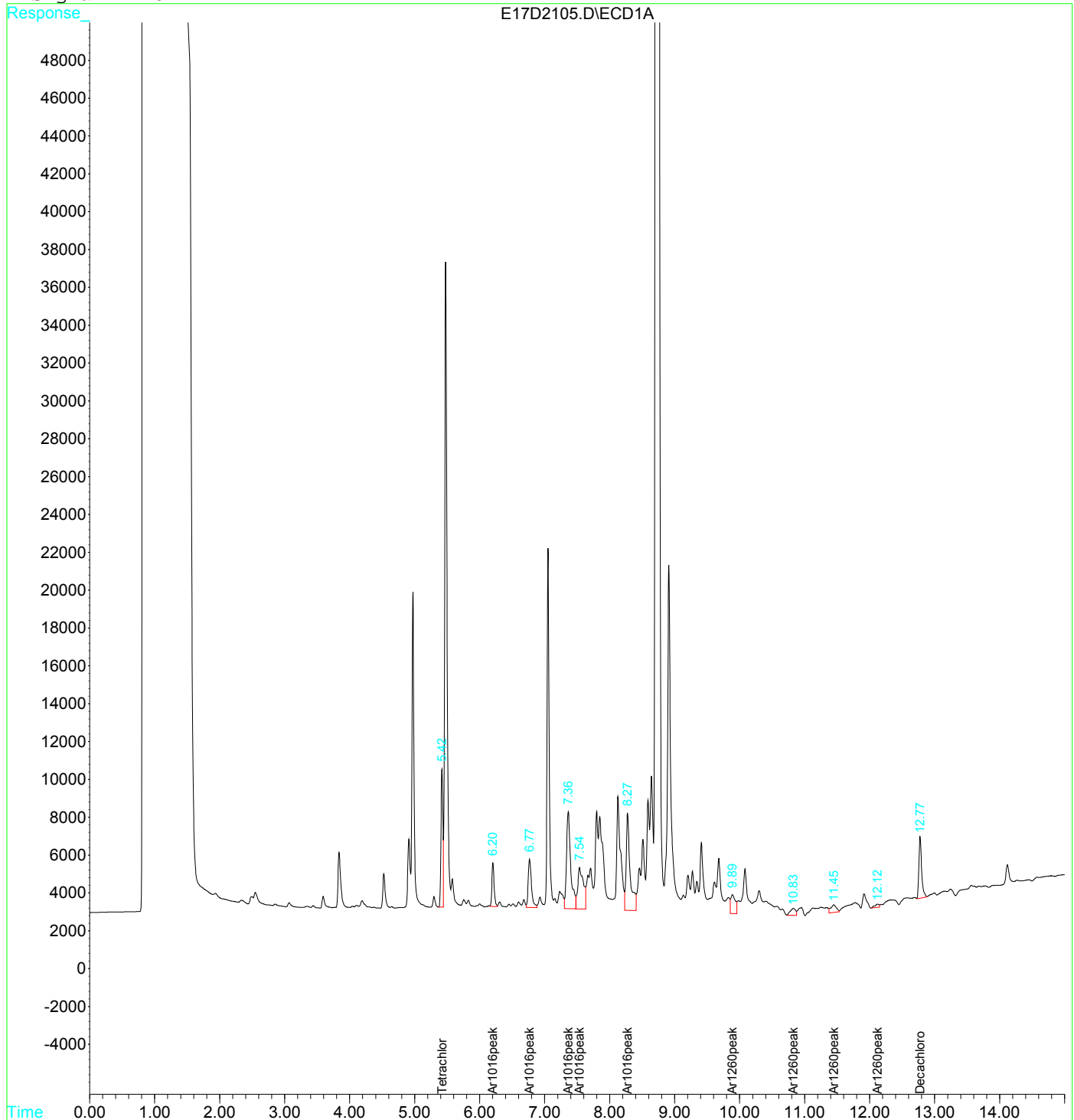
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	147684	0.022 ug/ml
2) S Decachlorobiphenyl	12.77	95619	0.012 ug/mlm3
Target Compounds			
3) Arl016peak1	6.20	54233	0.312 ug/ml
4) Arl016peak2	6.77	90014	0.248 ug/ml
5) Arl016peak3	7.36	232879	0.366 ug/ml
6) Arl016peak4	7.54	132459	0.453 ug/ml
7) Arl016peak5	8.28	218348	0.909 ug/ml
8) Arl260peak1	9.89	49015	0.095 ug/ml
9) Arl260peak2	0.00	0	N.D. ug/ml
10) Arl260peak3	10.83f	20825	0.056 ug/ml
11) Arl260peak4	11.45	24387	0.030 ug/ml
12) Arl260peak5	12.12	8068	0.037 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2105.D Vial: 4
 Acq On : 21 Apr 2017 9:33 am Operator: PJK
 Sample : 17D1149-01 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:00 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



ORGANIC ANALYSIS DATA SHEET

EPA 608 Rev 7/95

OL1567

Laboratory: Microbac Laboratories, Inc. - Chicagoland SDG: 17D1149
 Client: IDEM - Indianapolis, IN Project: OL - OL
 Matrix: Aqueous Laboratory ID: 17D1149-02 File ID: E17D2106.D
 Sampled: 04/19/17 14:36 Prepared: 04/21/17 05:49 Analyzed: 04/21/17 09:52
 Solids: Preparation: 40CFR136 Initial/Final: 940 ml / 5 ml
 Batch: B101502 Sequence: S034341 Calibration: UNASSIGNED Instrument: ECD-3

CAS NO.	COMPOUND	DILUTION	CONC. (µg/L)	Q
12674-11-2	Aroclor 1016	1	0.53	U
11104-28-2	Aroclor 1221	1	0.53	U
11141-16-5	Aroclor 1232	1	0.53	U
53469-21-9	Aroclor 1242	1	0.53	U
12672-29-6	Aroclor 1248	1	1.7	
11097-69-1	Aroclor 1254	1	0.53	U
11096-82-5	Aroclor 1260	1	0.53	U
37324-23-5	Aroclor 1262	1	0.53	U
11100-14-4	Aroclor 1268	1	0.53	U
	Total PCB's	1	1.7	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2106.D Vial: 5
Acq On : 21 Apr 2017 9:52 am Operator: PJK
Sample : 17D1149-02 Inst : ECD3
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 21 13:08 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
Title : ECD#3-COL A-CLP2-AR1248
Last Update : Mon Apr 17 15:43:47 2017
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\E17D13\E17D1314.D
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

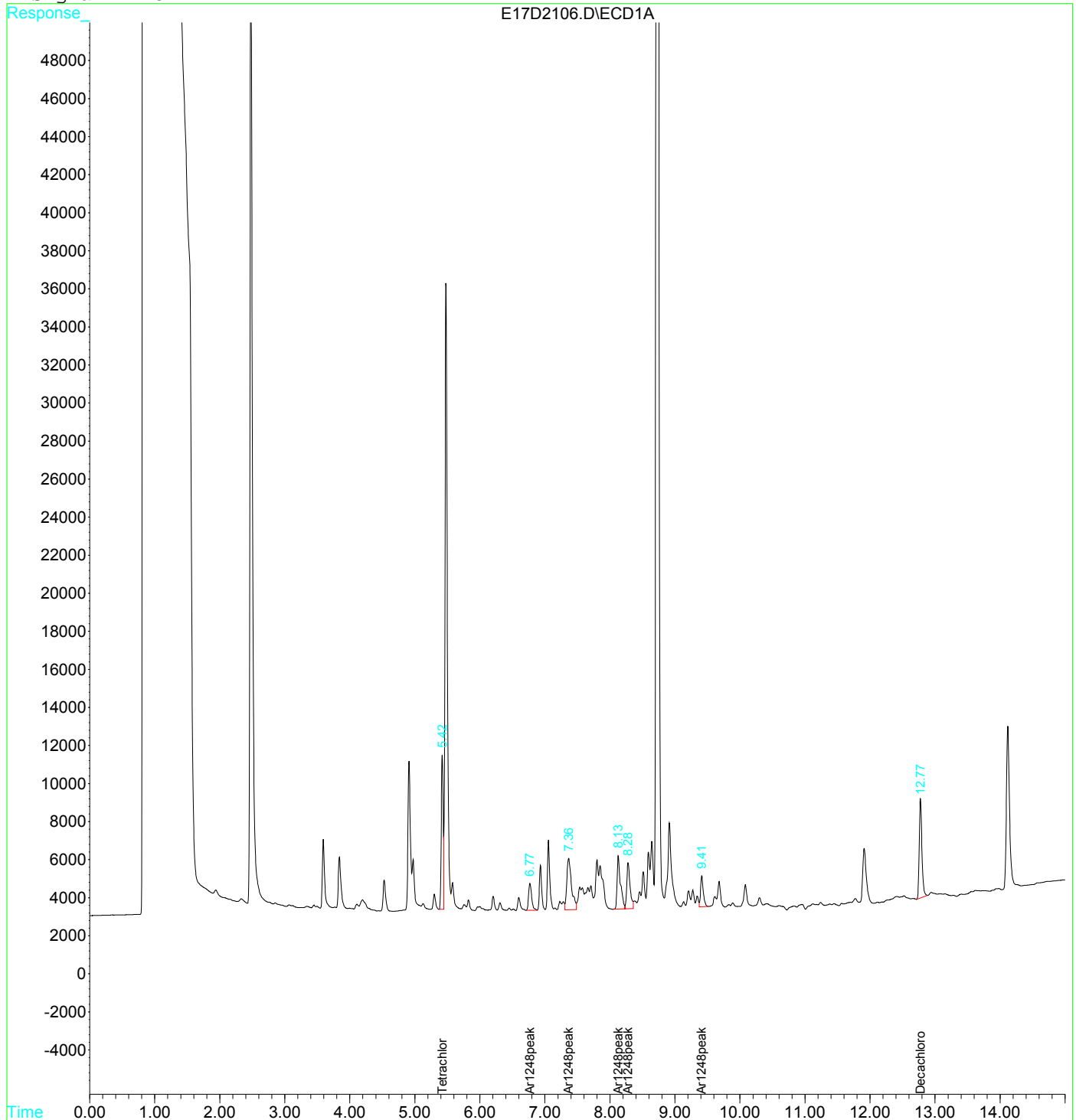
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	163892	0.024 ug/ml
Spiked Amount 0.020	Recovery	=	120.00%
2) S Decachlorobiphenyl	12.77	149142	0.019 ug/mlm3
Spiked Amount 0.020	Recovery	=	95.00%
Target Compounds			
3) Ar1248peak1	6.77	46950	0.329 ug/ml
4) Ar1248peak2	7.37	136009	0.407 ug/ml
5) Ar1248peak3	8.13	101648	0.263 ug/ml
6) Ar1248peak4	8.28	85314	0.281 ug/ml
7) Ar1248peak5	9.41	47276	0.272 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2106.D Vial: 5
 Acq On : 21 Apr 2017 9:52 am Operator: PJK
 Sample : 17D1149-02 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:08 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
 Title : ECD#3-COL A-CLP2-AR1248
 Last Update : Mon Apr 17 15:43:47 2017
 Response via : Single Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D21\E17D2106.D Vial: 5
 Acq On : 21 Apr 2017 9:52 am Operator: PJK
 Sample : 17D1149-02 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:01 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Initial Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

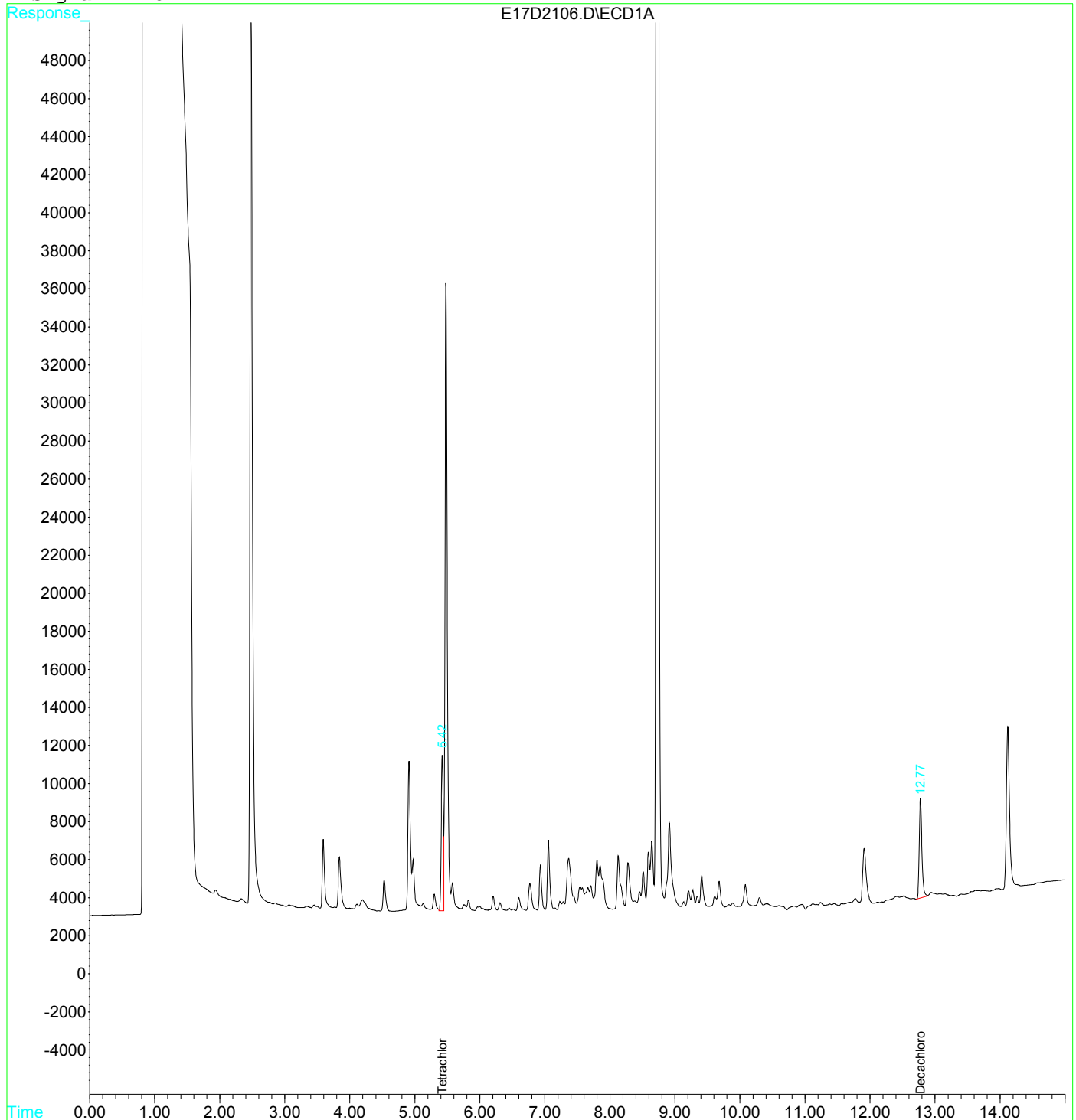
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	167287	0.024 ug/ml
2) S Decachlorobiphenyl	12.77	150773	0.019 ug/mlm3
Target Compounds			
3) Arl016peak1	0.00	0	N.D. ug/ml
4) Arl016peak2	0.00	0	N.D. ug/ml
5) Arl016peak3	0.00	0	N.D. ug/ml
6) Arl016peak4	0.00	0	N.D. ug/ml
7) Arl016peak5	0.00	0	N.D. ug/ml
8) Arl260peak1	0.00	0	N.D. ug/ml
9) Arl260peak2	0.00	0	N.D. ug/ml
10) Arl260peak3	0.00	0	N.D. ug/ml
11) Arl260peak4	0.00	0	N.D. ug/ml
12) Arl260peak5	0.00	0	N.D. ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2106.D Vial: 5
 Acq On : 21 Apr 2017 9:52 am Operator: PJK
 Sample : 17D1149-02 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:01 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



ORGANIC ANALYSIS DATA SHEET

EPA 608 Rev 7/95

OL1570

Laboratory: Microbac Laboratories, Inc. - Chicagoland SDG: 17D1149
 Client: IDEM - Indianapolis, IN Project: OL - OL
 Matrix: Aqueous Laboratory ID: 17D1149-03 File ID: E17D2107.D
 Sampled: 04/19/17 14:52 Prepared: 04/21/17 05:49 Analyzed: 04/21/17 10:11
 Solids: Preparation: 40CFR136 Initial/Final: 880 ml / 5 ml
 Batch: B101502 Sequence: S034341 Calibration: UNASSIGNED Instrument: ECD-3

CAS NO.	COMPOUND	DILUTION	CONC. (µg/L)	Q
12674-11-2	Aroclor 1016	1	0.57	U
11104-28-2	Aroclor 1221	1	0.57	U
11141-16-5	Aroclor 1232	1	0.57	U
53469-21-9	Aroclor 1242	1	0.57	U
12672-29-6	Aroclor 1248	1	5.0	
11097-69-1	Aroclor 1254	1	0.57	U
11096-82-5	Aroclor 1260	1	0.57	U
37324-23-5	Aroclor 1262	1	0.57	U
11100-14-4	Aroclor 1268	1	0.57	U
	Total PCB's	1	5.0	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2107.D Vial: 6
Acq On : 21 Apr 2017 10:11 am Operator: PJK
Sample : 17D1149-03 Inst : ECD3
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 21 13:07 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
Title : ECD#3-COL A-CLP2-AR1248
Last Update : Mon Apr 17 15:43:47 2017
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\E17D13\E17D1314.D
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

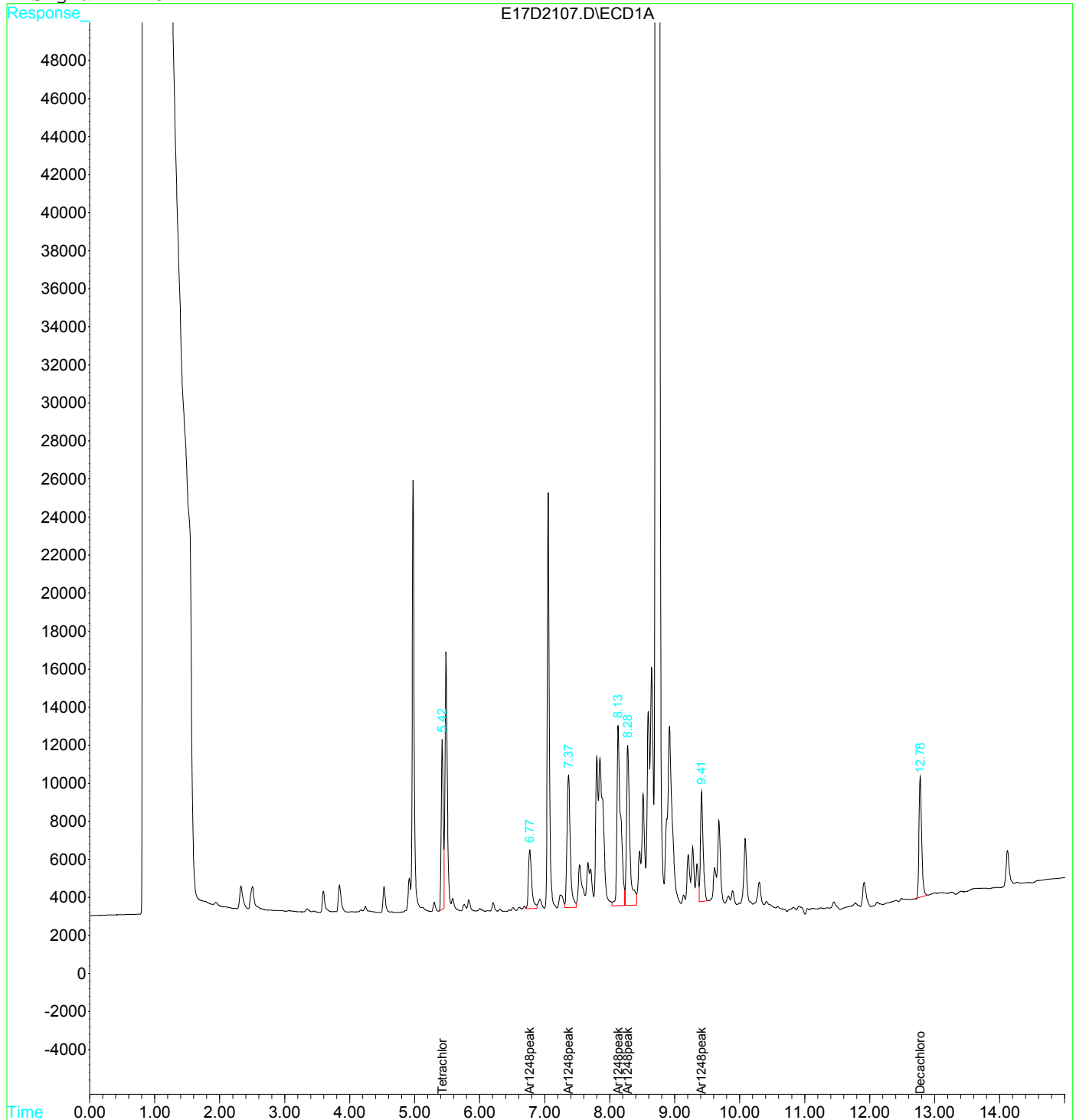
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	189490	0.028 ug/ml
Spiked Amount 0.020	Recovery	=	140.00%
2) S Decachlorobiphenyl	12.78	179248	0.022 ug/ml
Spiked Amount 0.020	Recovery	=	110.00%
Target Compounds			
3) Ar1248peak1	6.77	108012	0.758 ug/ml
4) Ar1248peak2	7.37	245968	0.736 ug/ml
5) Ar1248peak3	8.13	372013	0.964 ug/ml
6) Ar1248peak4	8.28	293902	0.967 ug/ml
7) Ar1248peak5	9.41	167101	0.962 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2107.D Vial: 6
 Acq On : 21 Apr 2017 10:11 am Operator: PJK
 Sample : 17D1149-03 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:07 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
 Title : ECD#3-COL A-CLP2-AR1248
 Last Update : Mon Apr 17 15:43:47 2017
 Response via : Single Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D21\E17D2107.D Vial: 6
 Acq On : 21 Apr 2017 10:11 am Operator: PJK
 Sample : 17D1149-03 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:01 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Initial Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

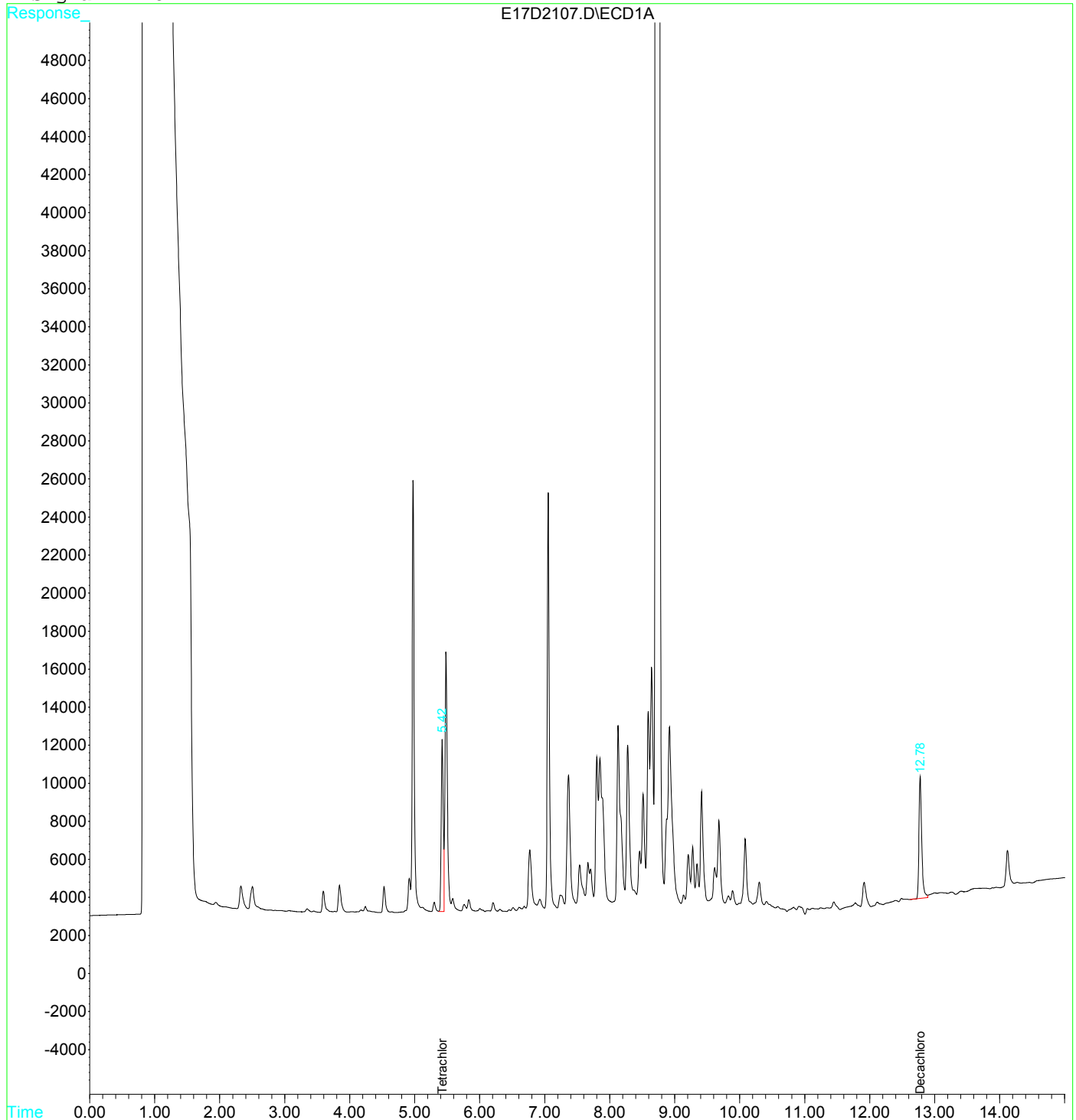
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	194012	0.028 ug/ml
2) S Decachlorobiphenyl	12.78	188028	0.024 ug/ml
Target Compounds			
3) Arl016peak1	0.00	0	N.D. ug/ml
4) Arl016peak2	0.00	0	N.D. ug/ml
5) Arl016peak3	0.00	0	N.D. ug/ml
6) Arl016peak4	0.00	0	N.D. ug/ml
7) Arl016peak5	0.00	0	N.D. ug/ml
8) Arl260peak1	0.00	0	N.D. ug/ml
9) Arl260peak2	0.00	0	N.D. ug/ml
10) Arl260peak3	0.00	0	N.D. ug/ml
11) Arl260peak4	0.00	0	N.D. ug/ml
12) Arl260peak5	0.00	0	N.D. ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2107.D Vial: 6
Acq On : 21 Apr 2017 10:11 am Operator: PJK
Sample : 17D1149-03 Inst : ECD3
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 21 13:01 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
Last Update : Fri Apr 14 14:22:46 2017
Response via : Multiple Level Calibration
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :



ORGANIC ANALYSIS DATA SHEET

EPA 608 Rev 7/95

OL1571

Laboratory: Microbac Laboratories, Inc. - Chicagoland SDG: 17D1149
 Client: IDEM - Indianapolis, IN Project: OL - OL
 Matrix: Aqueous Laboratory ID: 17D1149-04 File ID: E17D2110.D
 Sampled: 04/19/17 15:26 Prepared: 04/21/17 05:49 Analyzed: 04/21/17 11:11
 Solids: Preparation: 40CFR136 Initial/Final: 760 ml / 5 ml
 Batch: B101502 Sequence: S034341 Calibration: UNASSIGNED Instrument: ECD-3

CAS NO.	COMPOUND	DILUTION	CONC. (µg/L)	Q
12674-11-2	Aroclor 1016	5	3.3	U
11104-28-2	Aroclor 1221	5	3.3	U
11141-16-5	Aroclor 1232	5	3.3	U
53469-21-9	Aroclor 1242	5	3.3	U
12672-29-6	Aroclor 1248	5	48	D
11097-69-1	Aroclor 1254	5	3.3	U
11096-82-5	Aroclor 1260	5	3.3	U
37324-23-5	Aroclor 1262	5	3.3	U
11100-14-4	Aroclor 1268	5	3.3	U
	Total PCB's	5	48	D

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2110.D Vial: 7
 Acq On : 21 Apr 2017 11:11 am Operator: PJK
 Sample : 17D1149-04 Inst : ECD3
 Misc : Multiplr: 5.00
 IntFile : events.e
 Quant Time: Apr 21 13:07 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
 Title : ECD#3-COL A-CLP2-AR1248
 Last Update : Mon Apr 17 15:43:47 2017
 Response via : Continuing Cal File: C:\HPCHEM\1\DATA\E17D13\E17D1314.D
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

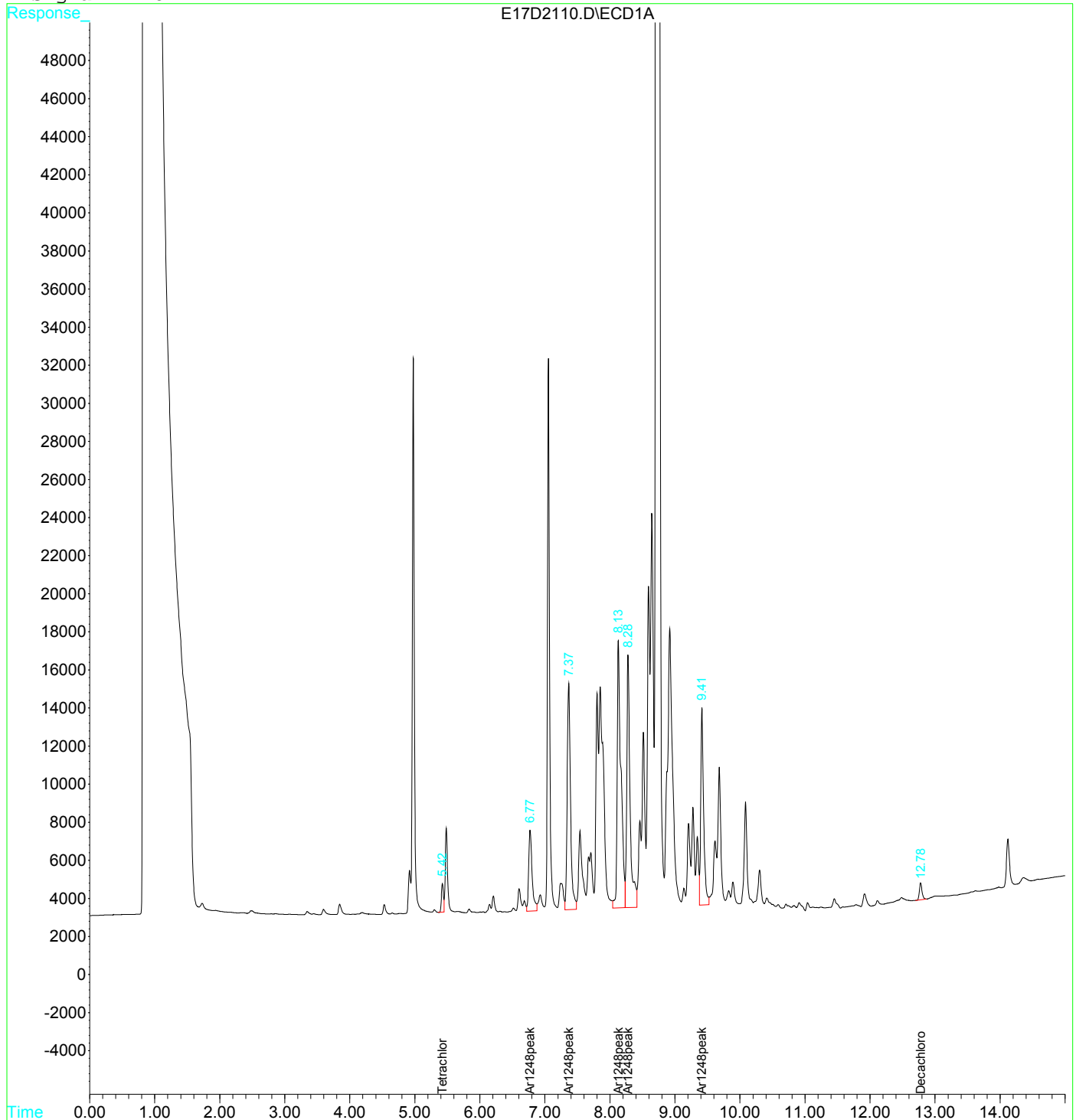
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	31564	0.005 ug/ml
Spiked Amount 0.020	Recovery	=	25.00%
2) S Decachlorobiphenyl	12.78	24633	0.003 ug/ml
Spiked Amount 0.020	Recovery	=	15.00%
Target Compounds			
3) Ar1248peak1	6.77	156733	1.100 ug/ml
4) Ar1248peak2	7.37	424859	1.271 ug/ml
5) Ar1248peak3	8.13	567433	1.471 ug/ml
6) Ar1248peak4	8.28	470174	1.547 ug/ml
7) Ar1248peak5	9.42	322612	1.857 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2110.D Vial: 7
 Acq On : 21 Apr 2017 11:11 am Operator: PJK
 Sample : 17D1149-04 Inst : ECD3
 Misc : Multiplr: 5.00
 IntFile : events.e
 Quant Time: Apr 21 13:07 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
 Title : ECD#3-COL A-CLP2-AR1248
 Last Update : Mon Apr 17 15:43:47 2017
 Response via : Single Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D21\E17D2110.D Vial: 7
Acq On : 21 Apr 2017 11:11 am Operator: PJK
Sample : 17D1149-04 Inst : ECD3
Misc : Multiplr: 5.00
IntFile : events.e
Quant Time: Apr 21 13:03 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
Last Update : Fri Apr 14 14:22:46 2017
Response via : Initial Calibration
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units

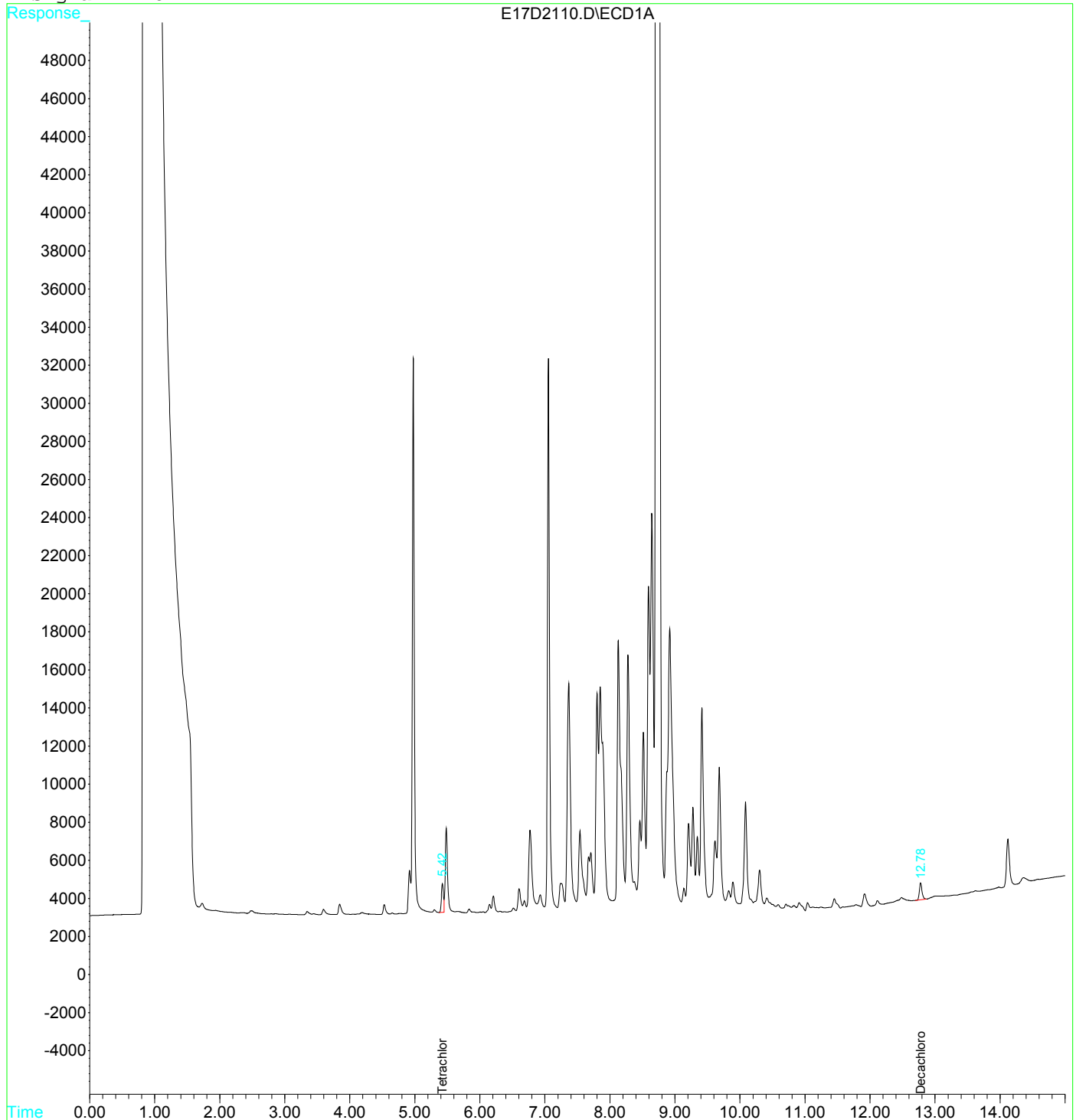
System Monitoring Compounds				
1) S Tetrachloro-m-xylene	5.42	32092	0.005	ug/ml
2) S Decachlorobiphenyl	12.78	24579	0.003	ug/ml
Target Compounds				
3) Ar1016peak1	0.00	0	N.D.	ug/ml
4) Ar1016peak2	0.00	0	N.D.	ug/ml
5) Ar1016peak3	0.00	0	N.D.	ug/ml
6) Ar1016peak4	0.00	0	N.D.	ug/ml
7) Ar1016peak5	0.00	0	N.D.	ug/ml
8) Ar1260peak1	0.00	0	N.D.	ug/ml
9) Ar1260peak2	0.00	0	N.D.	ug/ml
10) Ar1260peak3	0.00	0	N.D.	ug/ml
11) Ar1260peak4	0.00	0	N.D.	ug/ml
12) Ar1260peak5	0.00	0	N.D.	ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2110.D Vial: 7
 Acq On : 21 Apr 2017 11:11 am Operator: PJK
 Sample : 17D1149-04 Inst : ECD3
 Misc : Multiplr: 5.00
 IntFile : events.e
 Quant Time: Apr 21 13:03 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



ORGANIC ANALYSIS DATA SHEET

EPA 608 Rev 7/95

OL1572

Laboratory: Microbac Laboratories, Inc. - Chicagoland SDG: 17D1149
 Client: IDEM - Indianapolis, IN Project: OL - OL
 Matrix: Aqueous Laboratory ID: 17D1149-05 File ID: E17D2109.D
 Sampled: 04/19/17 14:04 Prepared: 04/21/17 05:49 Analyzed: 04/21/17 10:52
 Solids: Preparation: 40CFR136 Initial/Final: 980 ml / 5 ml
 Batch: B101502 Sequence: S034341 Calibration: UNASSIGNED Instrument: ECD-3

CAS NO.	COMPOUND	DILUTION	CONC. (µg/L)	Q
12674-11-2	Aroclor 1016	1	0.51	U
11104-28-2	Aroclor 1221	1	0.51	U
11141-16-5	Aroclor 1232	1	0.51	U
53469-21-9	Aroclor 1242	1	0.51	U
12672-29-6	Aroclor 1248	1	6.4	
11097-69-1	Aroclor 1254	1	0.51	U
11096-82-5	Aroclor 1260	1	0.51	U
37324-23-5	Aroclor 1262	1	0.51	U
11100-14-4	Aroclor 1268	1	0.51	U
	Total PCB's	1	6.4	

* Values outside of QC limits

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2109.D Vial: 8
 Acq On : 21 Apr 2017 10:52 am Operator: PJK
 Sample : 17D1149-05 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:09 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
 Title : ECD#3-COL A-CLP2-AR1248
 Last Update : Mon Apr 17 15:43:47 2017
 Response via : Continuing Cal File: C:\HPCHEM\1\DATA\E17D13\E17D1314.D
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

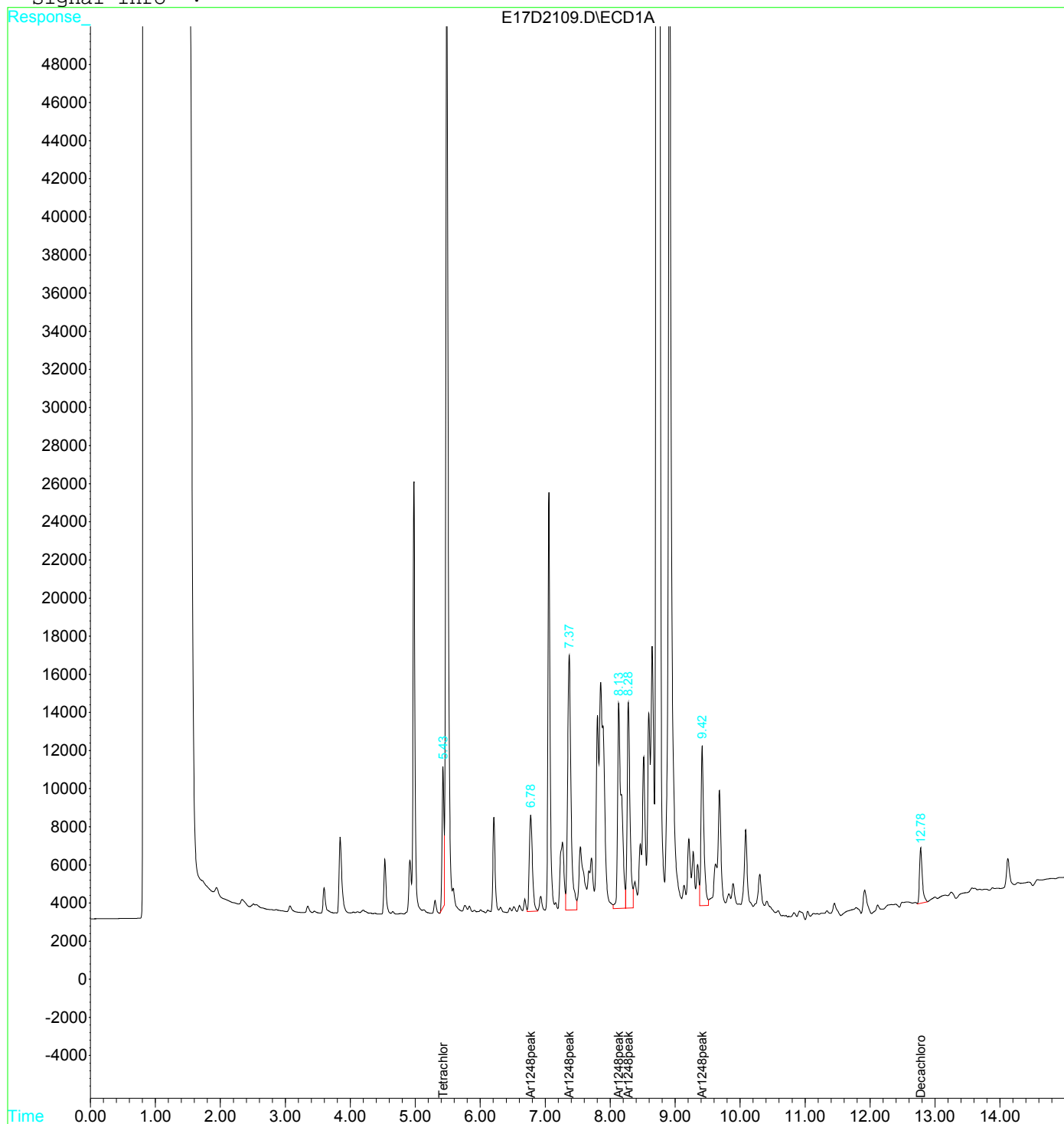
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.43	142506	0.021 ug/ml
Spiked Amount 0.020	Recovery	=	105.00%
2) S Decachlorobiphenyl	12.78	86743	0.011 ug/mlm3
Spiked Amount 0.020	Recovery	=	55.00%
Target Compounds			
3) Ar1248peak1	6.78	167837	1.178 ug/ml
4) Ar1248peak2	7.37	480903	1.438 ug/ml
5) Ar1248peak3	8.13	439709	1.140 ug/ml
6) Ar1248peak4	8.28	326786	1.075 ug/ml
7) Ar1248peak5	9.42	254300	1.464 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2109.D Vial: 8
 Acq On : 21 Apr 2017 10:52 am Operator: PJK
 Sample : 17D1149-05 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:09 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
 Title : ECD#3-COL A-CLP2-AR1248
 Last Update : Mon Apr 17 15:43:47 2017
 Response via : Single Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D21\E17D2109.D Vial: 8
Acq On : 21 Apr 2017 10:52 am Operator: PJK
Sample : 17D1149-05 Inst : ECD3
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 21 13:03 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
Last Update : Fri Apr 14 14:22:46 2017
Response via : Initial Calibration
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

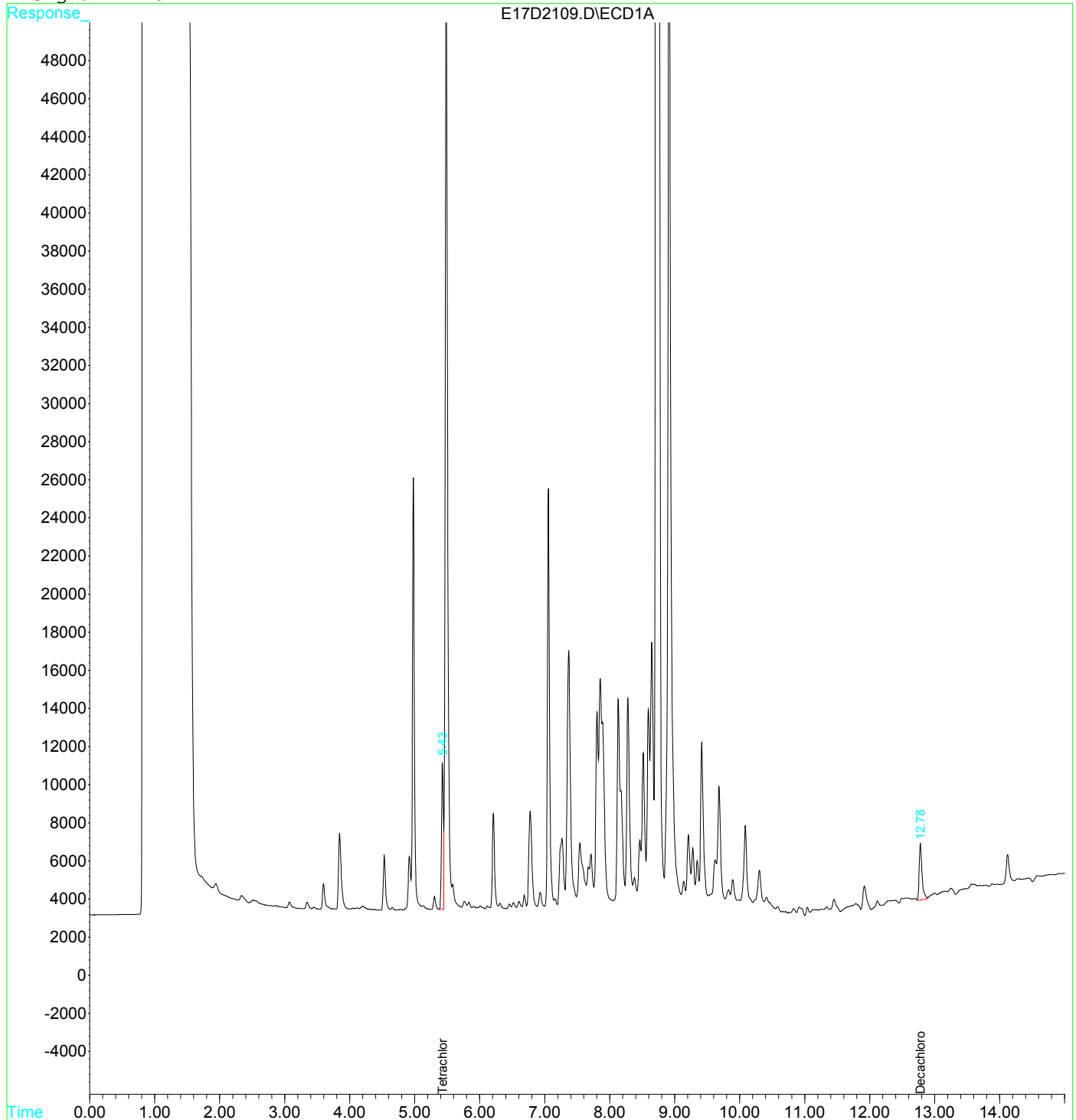
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.43	151812	0.022 ug/ml
2) S Decachlorobiphenyl	12.78	90407	0.011 ug/ml
Target Compounds			
3) Arl016peak1	0.00	0	N.D. ug/ml
4) Arl016peak2	0.00	0	N.D. ug/ml
5) Arl016peak3	0.00	0	N.D. ug/ml
6) Arl016peak4	0.00	0	N.D. ug/ml
7) Arl016peak5	0.00	0	N.D. ug/ml
8) Arl260peak1	0.00	0	N.D. ug/ml
9) Arl260peak2	0.00	0	N.D. ug/ml
10) Arl260peak3	0.00	0	N.D. ug/ml
11) Arl260peak4	0.00	0	N.D. ug/ml
12) Arl260peak5	0.00	0	N.D. ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2109.D Vial: 8
 Acq On : 21 Apr 2017 10:52 am Operator: PJK
 Sample : 17D1149-05 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:03 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



PCB FORM II: SURROGATE SUMMARY

SURROGATE STANDARD RECOVERY

EPA 608 Rev 7/95

Laboratory: Microbac Laboratories, Inc. - Chicagoland
 Client: IDEM - Indianapolis, IN
 Sequence: S034341
 Matrix: Aqueous

SDG: 17D1149
 Project: OL - OL
 Instrument: ECD-3
 Calibration: UNASSIGNED

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Calibration Check (S034341-CCV1) Lab File ID: E17D2102.D Analyzed: 04/21/17 08:36				
Decachlorobiphenyl	0.02000	95.0	0 - 200	
Tetrachloro-m-xylene	0.02000	95.0	0 - 200	
Blank (B101502-BLK2) Lab File ID: E17D2103.D Analyzed: 04/21/17 08:55				
Decachlorobiphenyl	0.2000	65.0	25.7 - 116	
Tetrachloro-m-xylene	0.2000	45.0	39.7 - 130	
LCS (B101502-BS2) Lab File ID: E17D2104.D Analyzed: 04/21/17 09:14				
Decachlorobiphenyl	0.2000	70.0	25.7 - 116	
Tetrachloro-m-xylene	0.2000	55.0	39.7 - 130	
OL1566 (17D1149-01) Lab File ID: E17D2105.D Analyzed: 04/21/17 09:33				
Decachlorobiphenyl	0.2020	32.5	25.7 - 116	
Tetrachloro-m-xylene	0.2020	55.0	39.7 - 130	
OL1567 (17D1149-02) Lab File ID: E17D2106.D Analyzed: 04/21/17 09:52				
Decachlorobiphenyl	0.2128	47.5	25.7 - 116	
Tetrachloro-m-xylene	0.2128	60.0	39.7 - 130	
OL1570 (17D1149-03) Lab File ID: E17D2107.D Analyzed: 04/21/17 10:11				
Decachlorobiphenyl	0.2273	55.0	25.7 - 116	
Tetrachloro-m-xylene	0.2273	70.0	39.7 - 130	
OL1572 (17D1149-05) Lab File ID: E17D2109.D Analyzed: 04/21/17 10:52				
Decachlorobiphenyl	0.2041	27.5	25.7 - 116	
Tetrachloro-m-xylene	0.2041	52.5	39.7 - 130	
OL1571 (17D1149-04) Lab File ID: E17D2110.D Analyzed: 04/21/17 11:11				
Decachlorobiphenyl	0.2632	37.5	25.7 - 116	
Tetrachloro-m-xylene	0.2632	62.5	39.7 - 130	
Matrix Spike (B101502-MS2) Lab File ID: E17D2112.D Analyzed: 04/21/17 11:48				
Decachlorobiphenyl	0.4082	70.0	25.7 - 116	
Tetrachloro-m-xylene	0.4082	70.0	39.7 - 130	
Matrix Spike Dup (B101502-MSD2) Lab File ID: E17D2113.D Analyzed: 04/21/17 12:07				
Decachlorobiphenyl	0.4255	70.0	25.7 - 116	
Tetrachloro-m-xylene	0.4255	75.0	39.7 - 130	
Calibration Check (S034341-CCV2) Lab File ID: E17D2115.D Analyzed: 04/21/17 12:45				
Decachlorobiphenyl	0.04000	100	0 - 200	
Tetrachloro-m-xylene	0.04000	108	0 - 200	

SURROGATE STANDARD RECOVERY

EPA 608 Rev 7/95

Laboratory: Microbac Laboratories, Inc. - Chicagoland

SDG: 17D1149

Client: IDEM - Indianapolis, IN

Project: OL - OL

Sequence: S034341

Instrument: ECD-3

Matrix: Aqueous

Calibration: UNASSIGNED

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Calibration Check (S034341-CCV3)		Lab File ID: E17D2116.D	Analyzed: 04/21/17 13:03	
Decachlorobiphenyl	0.02000	100	0 - 200	
Tetrachloro-m-xylene	0.02000	105	0 - 200	

PCB FORM III: LCS/MS/MSD SUMMARY

LCS / LCS DUPLICATE RECOVERY

EPA 608 Rev 7/95

Laboratory: Microbac Laboratories, Inc. - Chicagoland

SDG: 17D1149

Client: IDEM - Indianapolis, IN

Project: OL - OL

Matrix: Aqueous

Batch: B101502

Laboratory ID: B101502-BS2

Preparation: 40CFR136

Initial/Final: 1000 ml / 10 ml

COMPOUND	SPIKE ADDED (µg/L)	LCS CONCENTRATION (µg/L)	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	5.000	3.62	72.3	46 - 141
Aroclor 1260	5.000	3.72	74.4	42 - 116

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 608 Rev 7/95

OL1567

Laboratory: Microbac Laboratories, Inc. - Chicagoland

SDG: 17D1149

Client: IDEM - Indianapolis, IN

Project: OL - OL

Matrix: Aqueous

Batch: B101502

Laboratory ID: B101502-MS2

Preparation: 40CFR136

Initial/Final: 490 ml / 10 ml

Source Sample Name: OL1567

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	MS CONCENTRATION (µg/L)	MS % REC. #	QC LIMITS REC.
Aroclor 1016	10.20	ND	9.50	93.1	58.4 - 110
Aroclor 1260	10.20	ND	7.49	73.4	61.2 - 114

COMPOUND	SPIKE ADDED (µg/L)	MSD CONCENTRATION (µg/L)	MSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Aroclor 1016	10.64	10.2	95.6	6.84	40	58.4 - 110
Aroclor 1260	10.64	7.52	70.7	0.337	40	61.2 - 114

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

PCB FORM IV: BLANK SUMMARY

METHOD BLANK SUMMARY

EPA 608 Rev 7/95

Lab Name: Microbac Laboratories, Inc. - Chicagoland
Client: IDEM - Indianapolis, IN
Work Order: 17D1149
Project: OL - OL

Blank ID:	<u>B101502-BLK2</u>	File ID:	<u>E17D2103.D</u>	Batch:	<u>B101502</u>
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Client Sample ID	Laboratory Sample ID	Lab File ID	Analysis Date/Time
LCS	B101502-BS2	E17D2104.D	04/21/2017 0914
OL1566	17D1149-01	E17D2105.D	04/21/2017 0933
OL1567	17D1149-02	E17D2106.D	04/21/2017 0952
OL1570	17D1149-03	E17D2107.D	04/21/2017 1011
OL1572	17D1149-05	E17D2109.D	04/21/2017 1052
OL1571	17D1149-04	E17D2110.D	04/21/2017 1111
Matrix Spike	B101502-MS2	E17D2112.D	04/21/2017 1148
Matrix Spike Dup	B101502-MSD2	E17D2113.D	04/21/2017 1207

PCB FORM VI: INITIAL CALIBRATION SUMMARY

Response Factor Report ECD3

Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Initial Calibration

Calibration Files

0.05=E17D1402.D 0.10=E17D1403.D 0.20=E17D1404.D 0.5 =E17D1405.D 1.0 =E17D1406.D
 1.5 =E17D1407.D 2.0 =E17D1408.D = = =

Compound		0.05	0.10	0.20	0.5	1.0	1.5	Avg	%RSD:r^2
1) Avg	Tetrachloro-m-xylene	6.139	6.575	6.547	6.731	7.052	7.394	6.848	E6 7.158
2) Avg	Decachlorobiphenyl	7.763	8.360	8.055	8.010	7.789	7.838	7.940	E6 2.766
3) Avg	Ar1016peak1	1.574	1.958	1.835	1.774	1.715	1.688	1.740	E5 7.421
4) Avg	Ar1016peak2	3.997	3.889	3.808	3.632	3.448	3.380	3.631	E5 7.644
5) Avg	Ar1016peak3	6.466	6.511	6.602	6.413	6.244	6.209	6.358	E5 3.016
6) Avg	Ar1016peak4	2.975	3.045	3.071	2.943	2.851	2.822	2.922	E5 4.124
7) Avg	Ar1016peak5	2.028	2.498	2.477	2.385	2.479	2.500	2.402	E5 7.058
8) Avg	Ar1260peak1	5.348	5.606	5.393	5.161	4.954	4.910	5.161	E5 5.911
9) Avg	Ar1260peak2	3.700	4.082	3.964	3.786	3.554	3.453	3.698	E5 7.250
10) Avg	Ar1260peak3	3.590	4.015	3.810	3.759	3.604	3.669	3.715	E5 4.342
11) Avg	Ar1260peak4	7.619	8.302	8.113	8.096	8.125	8.310	8.112	E5 2.895
12) Avg	Ar1260peak5	2.200	2.165	2.175	2.147	2.152	2.208	2.179	E5 1.151

(#) = Out of Range ### Number of calibration levels exceeded format ###

C:\HPCHEM\1\METHODS\EPCB0414.M\calfit.txt

EPCB0414.M Fri Apr 14 14:27:31 2017 ECD3

PCB FORM VII: CONTINUING CALIBRATION SUMMARY

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2102.D Vial: 1
 Acq On : 21 Apr 2017 8:36 am Operator: PJK
 Sample : SEQ-CCV1 Inst : ECD3
 Misc : PCB 0.5 92784 Multiplr: 1.00
 IntFile : events.e

Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl1660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 S	Tetrachloro-m-xylene	6.848	6.561 E6	4.2	97	0.00
2 S	Decachlorobiphenyl	7.940	7.478 E6	5.8	93	0.00
3	Arl016peak1	173.981	168.886 E3	2.9	95	0.00
4	Arl016peak2	363.128	348.500 E3	4.0	96	0.00
5	Arl016peak3	635.813	589.912 E3	7.2	92	0.00
6	Arl016peak4	292.166	276.783 E3	5.3	94	0.00
7	Arl016peak5	240.151	214.234 E3	10.8	90	0.00
8	Arl260peak1	516.081	487.876 E3	5.5	95	0.00
9	Arl260peak2	369.777	364.150 E3	1.5	96	0.00
10	Arl260peak3	371.480	356.187 E3	4.1	95	0.00
11	Arl260peak4	811.231	763.067 E3	5.9	94	0.00
12	Arl260peak5	217.861	194.669 E3	10.6	91	0.00

PCB FORM VIII: ANALYTICAL SEQUENCE

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 608 Rev 7/95

Laboratory: Microbac Laboratories, Inc. - Chicagoland

SDG: 17D1149

Client: IDEM - Indianapolis, IN

Project: OL - OL

Sequence: S034341

Instrument: ECD-3

Matrix: Aqueous

Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	S034341-CCV1	E17D2102.D	04/21/17 08:36
Blank	B101502-BLK2	E17D2103.D	04/21/17 08:55
LCS	B101502-BS2	E17D2104.D	04/21/17 09:14
OL1566	17D1149-01	E17D2105.D	04/21/17 09:33
OL1567	17D1149-02	E17D2106.D	04/21/17 09:52
OL1570	17D1149-03	E17D2107.D	04/21/17 10:11
OL1572	17D1149-05	E17D2109.D	04/21/17 10:52
OL1571	17D1149-04	E17D2110.D	04/21/17 11:11
OL1567	B101502-MS2	E17D2112.D	04/21/17 11:48
OL1567	B101502-MSD2	E17D2113.D	04/21/17 12:07
Calibration Check	S034341-CCV2	E17D2115.D	04/21/17 12:45
Calibration Check	S034341-CCV3	E17D2116.D	04/21/17 13:03

**PCB FORM X:
IDENTIFICATION
SUMMARY FOR
MULTI-COMPONENT
ANALYTES**

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17D1149-01
 Instrument ID: ECD-3
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1566

Contract: IDEMCase No: 17D1149Date Analyzed: 04/21/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	6.20	6.20	5.70	6.70	0.312
	2	6.77	6.77	6.27	7.27	0.248
	3	7.37	7.37	6.87	7.87	0.366
	4	7.54	7.54	7.04	8.04	0.453
	5	8.28	8.28	7.78	8.78	0.909
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.77	6.77	NA	NA	0.557
	2	7.36	7.36	NA	NA	0.593
	3	8.13	8.13	NA	NA	0.524
	4	8.28	8.28	NA	NA	0.516
	5	9.41	9.41	NA	NA	0.524
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.89	9.89	9.39	10.39	0.095
	2	10.40	NA	9.90	10.90	NA
	3	10.74	10.83	10.24	11.24	0.056
	4	11.45	11.45	10.95	11.95	0.030
	5	12.11	12.12	11.61	12.61	0.037
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.42	5.42	4.92	5.92	0.022
DCB(SURR)	1	12.77	12.77	12.27	13.27	0.012

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17D1149-02
 Instrument ID: ECD-3
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1567

Contract: IDEMCase No: 17D1149Date Analyzed: 04/21/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	6.20	NA	5.70	6.70	NA
	2	6.77	NA	6.27	7.27	NA
	3	7.37	NA	6.87	7.87	NA
	4	7.54	NA	7.04	8.04	NA
	5	8.28	NA	7.78	8.78	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.77	6.77	NA	NA	0.329
	2	7.36	7.37	NA	NA	0.407
	3	8.13	8.13	NA	NA	0.263
	4	8.28	8.28	NA	NA	0.281
	5	9.41	9.41	NA	NA	0.272
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.89	NA	9.39	10.39	NA
	2	10.40	NA	9.90	10.90	NA
	3	10.74	NA	10.24	11.24	NA
	4	11.45	NA	10.95	11.95	NA
	5	12.11	NA	11.61	12.61	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.42	5.42	4.92	5.92	0.024
DCB(SURR)	1	12.77	12.77	12.27	13.27	0.019

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17D1149-03
 Instrument ID: ECD-3
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1570

Contract: IDEMCase No: 17D1149Date Analyzed: 04/21/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	6.20	NA	5.70	6.70	NA
	2	6.77	NA	6.27	7.27	NA
	3	7.37	NA	6.87	7.87	NA
	4	7.54	NA	7.04	8.04	NA
	5	8.28	NA	7.78	8.78	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.77	6.77	NA	NA	0.758
	2	7.36	7.37	NA	NA	0.736
	3	8.13	8.13	NA	NA	0.964
	4	8.28	8.28	NA	NA	0.967
	5	9.41	9.41	NA	NA	0.962
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.89	NA	9.39	10.39	NA
	2	10.40	NA	9.90	10.90	NA
	3	10.74	NA	10.24	11.24	NA
	4	11.45	NA	10.95	11.95	NA
	5	12.11	NA	11.61	12.61	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.42	5.42	4.92	5.92	0.028
DCB(SURR)	1	12.77	12.78	12.27	13.27	0.024

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17D1149-04
 Instrument ID: ECD-3
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1571

Contract: IDEMCase No: 17D1149Date Analyzed: 04/21/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	6.20	NA	5.70	6.70	NA
	2	6.77	NA	6.27	7.27	NA
	3	7.37	NA	6.87	7.87	NA
	4	7.54	NA	7.04	8.04	NA
	5	8.28	NA	7.78	8.78	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.77	6.77	NA	NA	1.100
	2	7.36	7.37	NA	NA	1.271
	3	8.13	8.13	NA	NA	1.471
	4	8.28	8.28	NA	NA	1.547
	5	9.41	9.42	NA	NA	1.857
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.89	NA	9.39	10.39	NA
	2	10.40	NA	9.90	10.90	NA
	3	10.74	NA	10.24	11.24	NA
	4	11.45	NA	10.95	11.95	NA
	5	12.11	NA	11.61	12.61	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.42	5.42	4.92	5.92	0.005
DCB(SURR)	1	12.77	12.78	12.27	13.27	0.003

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17D1149-05
 Instrument ID: ECD-3
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1572

Contract: IDEMCase No: 17D1149Date Analyzed: 04/21/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	6.20	NA	5.70	6.70	NA
	2	6.77	NA	6.27	7.27	NA
	3	7.37	NA	6.87	7.87	NA
	4	7.54	NA	7.04	8.04	NA
	5	8.28	NA	7.78	8.78	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.77	6.78	NA	NA	1.178
	2	7.36	7.37	NA	NA	1.438
	3	8.13	8.13	NA	NA	1.140
	4	8.28	8.28	NA	NA	1.075
	5	9.41	9.42	NA	NA	1.464
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.89	NA	9.39	10.39	NA
	2	10.40	NA	9.90	10.90	NA
	3	10.74	NA	10.24	11.24	NA
	4	11.45	NA	10.95	11.95	NA
	5	12.11	NA	11.61	12.61	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.43	NA	4.93	5.93	0.022
DCB(SURR)	1	12.78	NA	12.28	13.28	0.011

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B101502-BLK2
 Instrument ID: ECD-3
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B101502-BLK2

Contract: IDEMCase No: 17D1149Date Analyzed: 04/21/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	6.20	NA	5.70	6.70	NA
	2	6.77	NA	6.27	7.27	NA
	3	7.37	NA	6.87	7.87	NA
	4	7.54	NA	7.04	8.04	NA
	5	8.28	NA	7.78	8.78	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.77	NA	NA	NA	NA
	2	7.36	NA	NA	NA	NA
	3	8.13	NA	NA	NA	NA
	4	8.28	NA	NA	NA	NA
	5	9.41	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.89	NA	9.39	10.39	NA
	2	10.40	NA	9.90	10.90	NA
	3	10.74	NA	10.24	11.24	NA
	4	11.45	NA	10.95	11.95	NA
	5	12.11	NA	11.61	12.61	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.42	5.42	4.92	5.92	0.009
DCB(SURR)	1	12.77	12.77	12.27	13.27	0.013

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B101502-BS2
 Instrument ID: ECD-3
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B101502-BS2

Contract: IDEMCase No: 17D1149Date Analyzed: 04/21/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	6.20	6.20	5.70	6.70	0.361
	2	6.77	6.77	6.27	7.27	0.366
	3	7.37	7.36	6.87	7.87	0.352
	4	7.54	7.54	7.04	8.04	0.364
	5	8.28	8.28	7.78	8.78	0.365
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.77	NA	NA	NA	NA
	2	7.36	NA	NA	NA	NA
	3	8.13	NA	NA	NA	NA
	4	8.28	NA	NA	NA	NA
	5	9.41	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.89	9.89	9.39	10.39	0.380
	2	10.40	10.40	9.90	10.90	0.387
	3	10.74	10.74	10.24	11.24	0.366
	4	11.45	11.45	10.95	11.95	0.368
	5	12.11	12.11	11.61	12.61	0.360
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.42	5.42	4.92	5.92	0.011
DCB(SURR)	1	12.77	12.77	12.27	13.27	0.014

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B101502-MS2
 Instrument ID: ECD-3
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B101502-MS2

Contract: IDEMCase No: 17D1149Date Analyzed: 04/21/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	6.20	6.20	5.70	6.70	0.454
	2	6.77	6.77	6.27	7.27	0.459
	3	7.37	7.37	6.87	7.87	0.473
	4	7.54	7.54	7.04	8.04	0.476
	5	8.28	8.28	7.78	8.78	0.465
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.77	NA	NA	NA	NA
	2	7.36	NA	NA	NA	NA
	3	8.13	NA	NA	NA	NA
	4	8.28	NA	NA	NA	NA
	5	9.41	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.89	9.89	9.39	10.39	NA
	2	10.40	10.41	9.90	10.90	0.390
	3	10.74	10.75	10.24	11.24	0.382
	4	11.45	11.45	10.95	11.95	0.325
	5	12.11	12.11	11.61	12.61	0.357
Ar 1262	1	NA	NA	NA	NA	0.382
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.42	5.42	4.92	5.92	0.014
DCB(SURR)	1	12.77	12.78	12.27	13.27	0.014

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B101502-MSD2
 Instrument ID: ECD-3
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B101502-MSD2

Contract: IDEMCase No: 17D1149Date Analyzed: 04/21/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	6.20	6.20	5.70	6.70	0.472
	2	6.77	6.77	6.27	7.27	0.464
	3	7.37	7.37	6.87	7.87	0.486
	4	7.54	7.54	7.04	8.04	0.489
	5	8.28	8.28	7.78	8.78	0.479
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.77	NA	NA	NA	NA
	2	7.36	NA	NA	NA	NA
	3	8.13	NA	NA	NA	NA
	4	8.28	NA	NA	NA	NA
	5	9.41	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.89	9.89	9.39	10.39	0.388
	2	10.40	10.40	9.90	10.90	0.376
	3	10.74	10.74	10.24	11.24	0.309
	4	11.45	11.45	10.95	11.95	0.344
	5	12.11	12.11	11.61	12.61	0.350
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.42	5.42	4.92	5.92	0.015
DCB(SURR)	1	12.77	12.77	12.27	13.27	0.014

PCB STANDARD RAW DATA

Data File : C:\HPCHEM\1\DATA\E17D14\E17D1402.D Vial: 1
 Acq On : 14 Apr 2017 9:04 am Operator: PJK
 Sample : SEQ-CAL1 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:05 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Initial Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

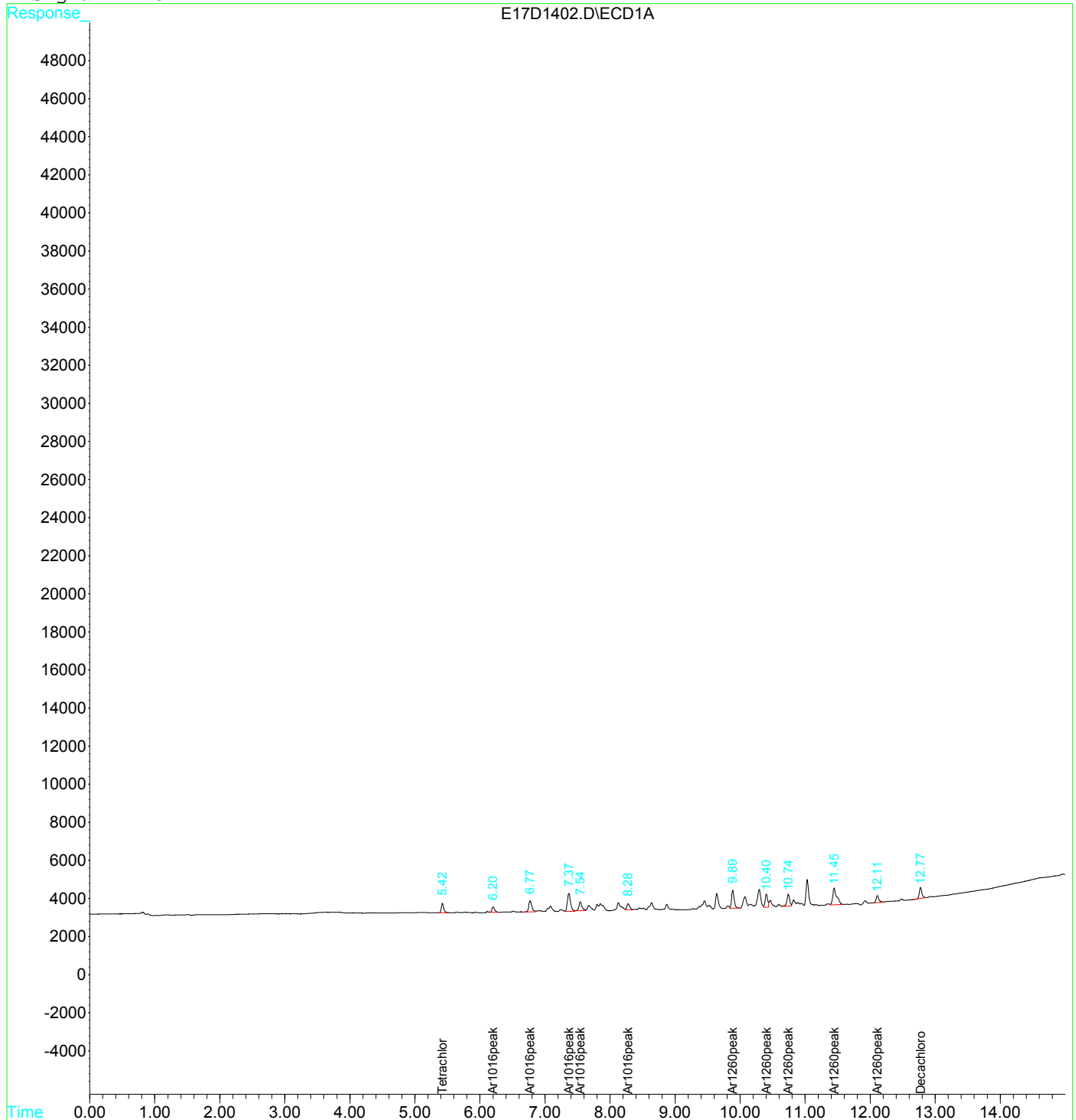
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	12279	0.002 ug/ml
2) S Decachlorobiphenyl	12.77f	15526	0.002 ug/ml
Target Compounds			
3) Arl016peak1	6.20	7869	0.044 ug/ml
4) Arl016peak2	6.77	19984	0.054 ug/mlm3
5) Arl016peak3	7.37	32330	0.050 ug/ml
6) Arl016peak4	7.54	14873	0.050 ug/mlm3
7) Arl016peak5	8.28f	10139	0.043 ug/mlm3
8) Arl260peak1	9.89f	26738	0.049 ug/ml
9) Arl260peak2	10.40	18502	0.053 ug/mlm2
10) Arl260peak3	10.74	17949	0.050 ug/mlm2
11) Arl260peak4	11.45f	38094	0.050 ug/ml
12) Arl260peak5	12.11f	11002	0.061 ug/mlm3

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D14\E17D1402.D Vial: 1
 Acq On : 14 Apr 2017 9:04 am Operator: PJK
 Sample : SEQ-CAL1 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:05 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D14\E17D1403.D Vial: 2
 Acq On : 14 Apr 2017 9:23 am Operator: PJK
 Sample : SEQ-CAL2 Inst : ECD3
 Misc : PCB 0.1 92782 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:08 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Initial Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

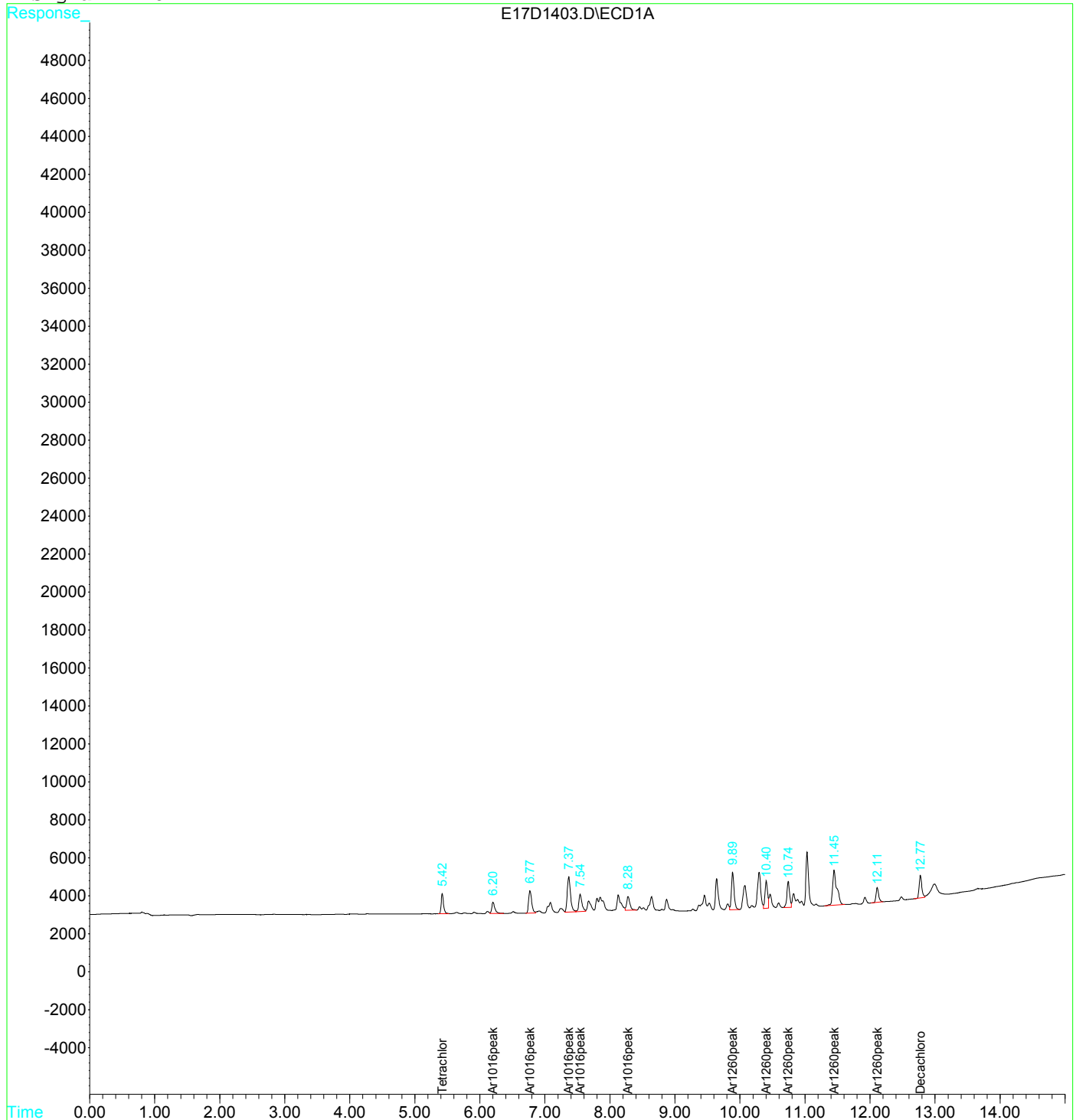
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	26301	0.004 ug/ml
2) S Decachlorobiphenyl	12.78f	33438	0.004 ug/ml
Target Compounds			
3) Arl016peak1	6.20	19583	0.109 ug/mlm3
4) Arl016peak2	6.77	38887	0.105 ug/mlm3
5) Arl016peak3	7.37	65105	0.100 ug/ml
6) Arl016peak4	7.54	30449	0.103 ug/ml
7) Arl016peak5	8.28f	24983	0.106 ug/ml
8) Arl260peak1	9.89f	56060	0.103 ug/ml
9) Arl260peak2	10.40	40819	0.116 ug/mlm2
10) Arl260peak3	10.74	40151	0.113 ug/mlm3
11) Arl260peak4	11.45f	83023	0.110 ug/ml
12) Arl260peak5	12.11	21649	0.121 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D14\E17D1403.D Vial: 2
 Acq On : 14 Apr 2017 9:23 am Operator: PJK
 Sample : SEQ-CAL2 Inst : ECD3
 Misc : PCB 0.1 92782 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:08 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D14\E17D1404.D Vial: 3
 Acq On : 14 Apr 2017 9:42 am Operator: PJK
 Sample : SEQ-CAL3 Inst : ECD3
 Misc : PCB 0.2 92783 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:10 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Initial Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

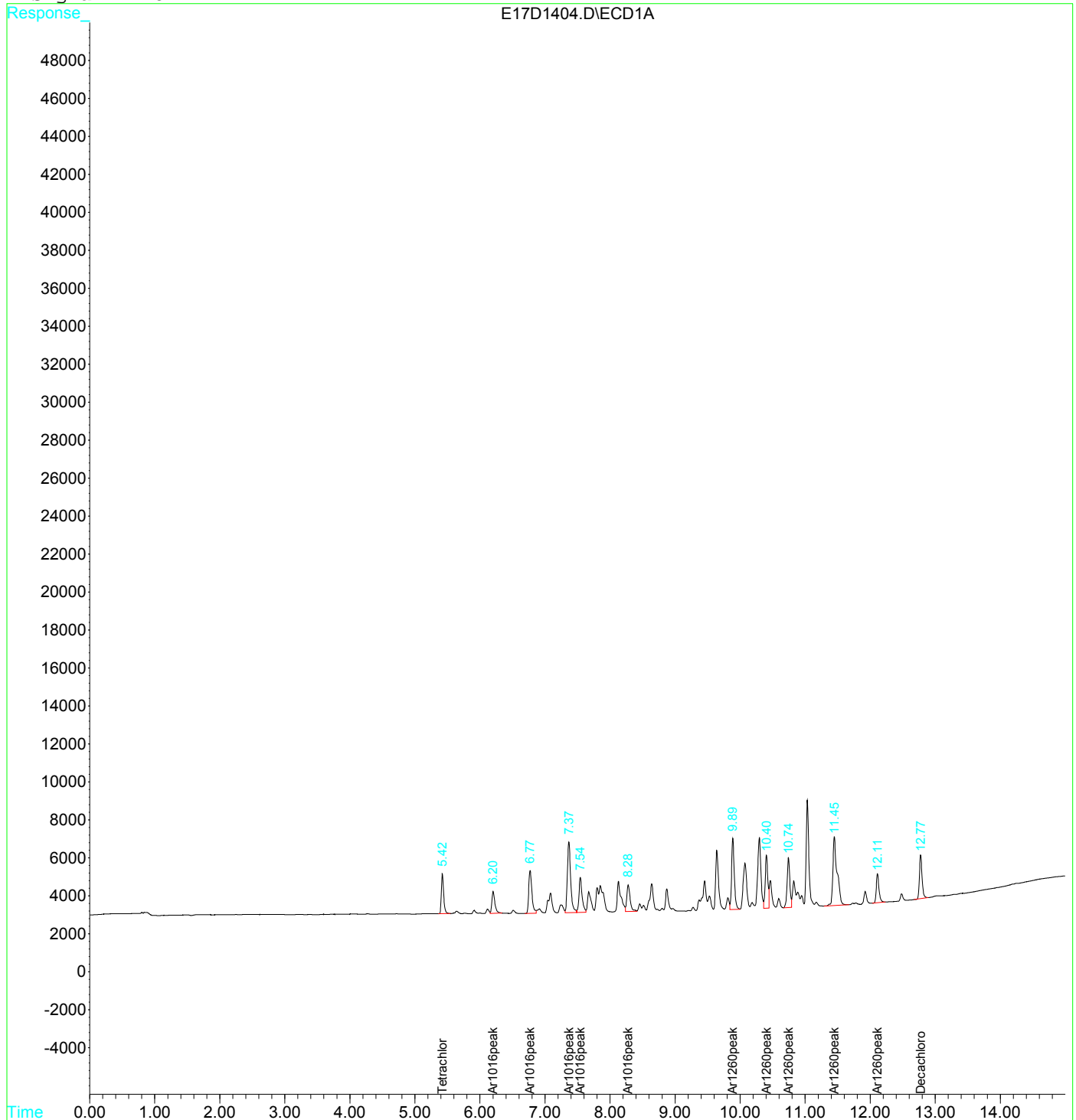
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	52380	0.008 ug/ml
2) S Decachlorobiphenyl	12.78f	64439	0.008 ug/ml
Target Compounds			
3) Arl016peak1	6.20	36700	0.204 ug/ml
4) Arl016peak2	6.77	76166	0.206 ug/ml
5) Arl016peak3	7.37	132043	0.202 ug/ml
6) Arl016peak4	7.54	61428	0.208 ug/ml
7) Arl016peak5	8.28f	49539	0.211 ug/ml
8) Arl260peak1	9.89f	107869	0.199 ug/ml
9) Arl260peak2	10.40	79284	0.226 ug/mlm2
10) Arl260peak3	10.74	76199	0.214 ug/mlm2
11) Arl260peak4	11.45f	162256	0.215 ug/ml
12) Arl260peak5	12.11	43499	0.243 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D14\E17D1404.D Vial: 3
 Acq On : 14 Apr 2017 9:42 am Operator: PJK
 Sample : SEQ-CAL3 Inst : ECD3
 Misc : PCB 0.2 92783 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:10 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D14\E17D1405.D Vial: 4
 Acq On : 14 Apr 2017 10:01 am Operator: PJK
 Sample : SEQ-CAL4 Inst : ECD3
 Misc : PCB 0.5 92784 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:13 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Initial Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

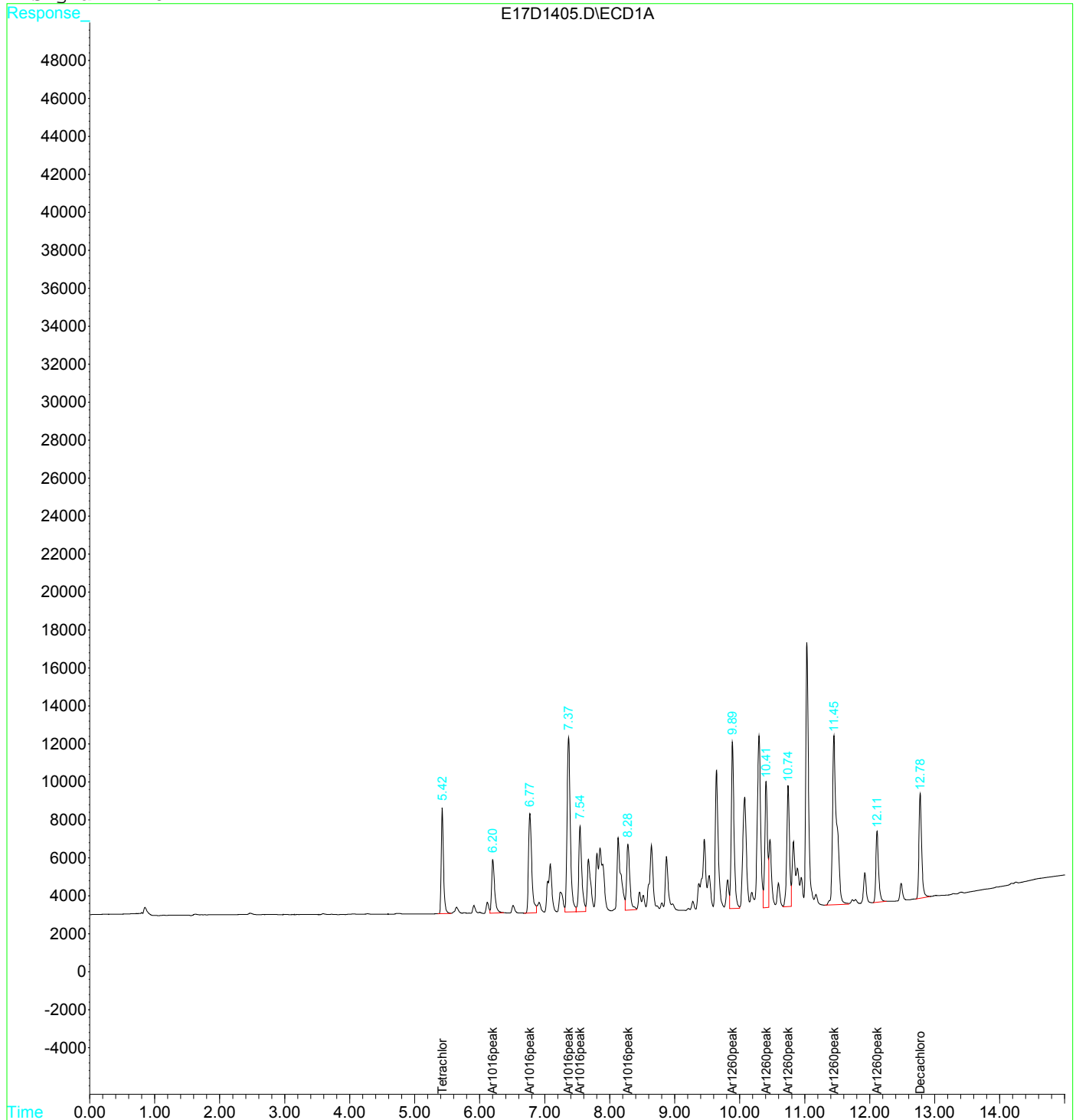
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	134629	0.019 ug/ml
2) S Decachlorobiphenyl	12.78f	160205	0.020 ug/mlm3
Target Compounds			
3) Arl016peak1	6.20	88721	0.494 ug/ml
4) Arl016peak2	6.77	181617	0.490 ug/ml
5) Arl016peak3	7.37	320668	0.491 ug/ml
6) Arl016peak4	7.54	147151	0.497 ug/ml
7) Arl016peak5	8.28	119268	0.508 ug/ml
8) Arl260peak1	9.89f	258049	0.476 ug/ml
9) Arl260peak2	10.41	189284	0.540 ug/mlm2
10) Arl260peak3	10.74	187952	0.528 ug/mlm2
11) Arl260peak4	11.45	404822	0.536 ug/ml
12) Arl260peak5	12.11	107373	0.599 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D14\E17D1405.D Vial: 4
 Acq On : 14 Apr 2017 10:01 am Operator: PJK
 Sample : SEQ-CAL4 Inst : ECD3
 Misc : PCB 0.5 92784 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:13 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D14\E17D1406.D Vial: 5
 Acq On : 14 Apr 2017 10:19 am Operator: PJK
 Sample : SEQ-CAL5 Inst : ECD3
 Misc : PCB 1.0 92785 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:14 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Initial Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

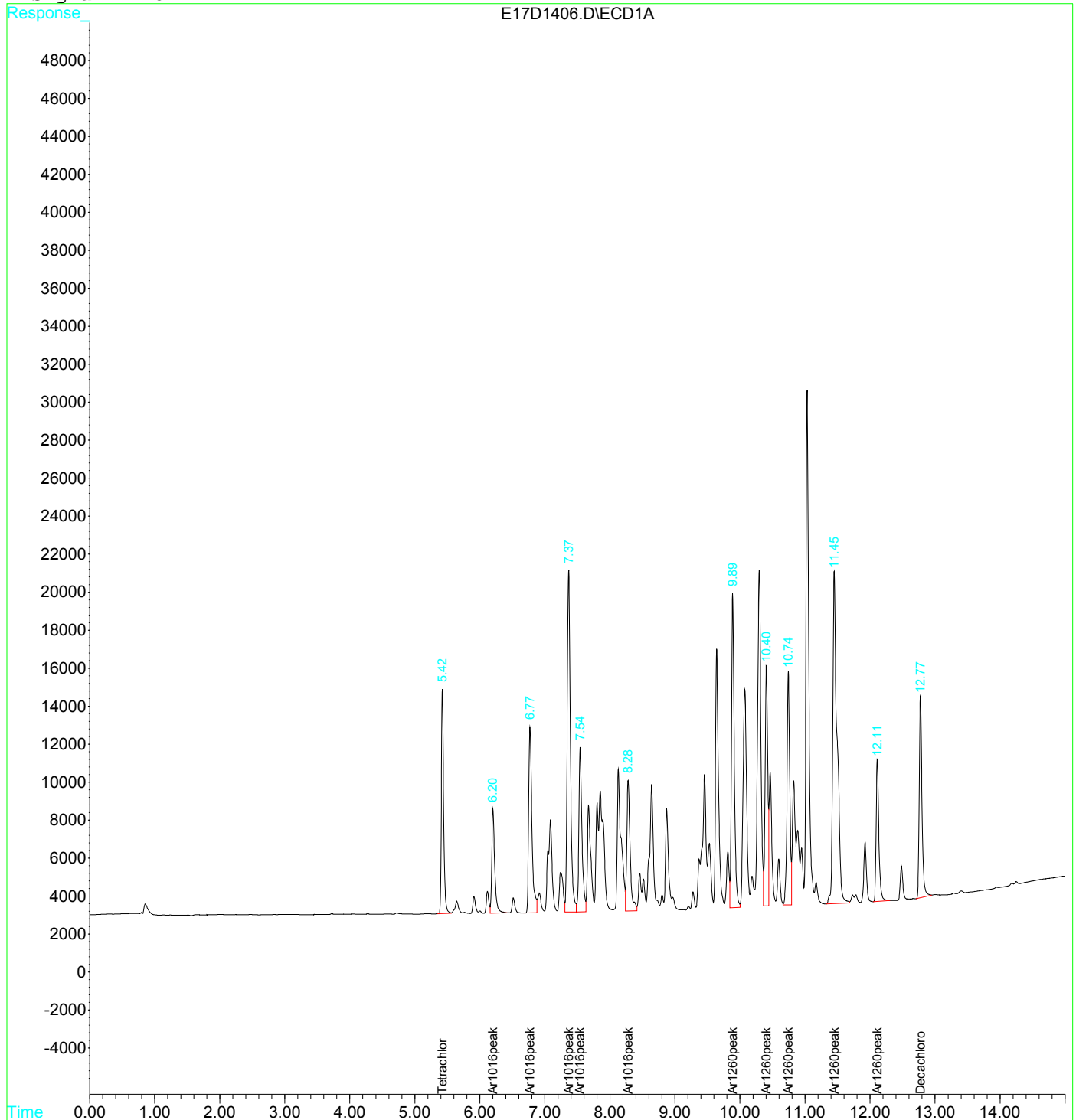
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	282072	0.041 ug/ml
2) S Decachlorobiphenyl	12.78f	311559	0.040 ug/ml
Target Compounds			
3) Arl016peak1	6.20	171504	0.955 ug/ml
4) Arl016peak2	6.77	344767	0.931 ug/ml
5) Arl016peak3	7.37	624447	0.957 ug/ml
6) Arl016peak4	7.54	285136	0.963 ug/ml
7) Arl016peak5	8.28	247869	1.055 ug/ml
8) Arl260peak1	9.89f	495353	0.914 ug/ml
9) Arl260peak2	10.40	355439	1.014 ug/mlm2
10) Arl260peak3	10.74	360383	1.013 ug/mlm2
11) Arl260peak4	11.45	812488	1.076 ug/ml
12) Arl260peak5	12.11	215217	1.201 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D14\E17D1406.D Vial: 5
 Acq On : 14 Apr 2017 10:19 am Operator: PJK
 Sample : SEQ-CAL5 Inst : ECD3
 Misc : PCB 1.0 92785 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:14 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D14\E17D1407.D Vial: 6
Acq On : 14 Apr 2017 10:38 am Operator: PJK
Sample : SEQ-CAL6 Inst : ECD3
Misc : PCB 1.5 92786 Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 14 14:16 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
Last Update : Mon Jan 09 10:58:33 2017
Response via : Initial Calibration
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

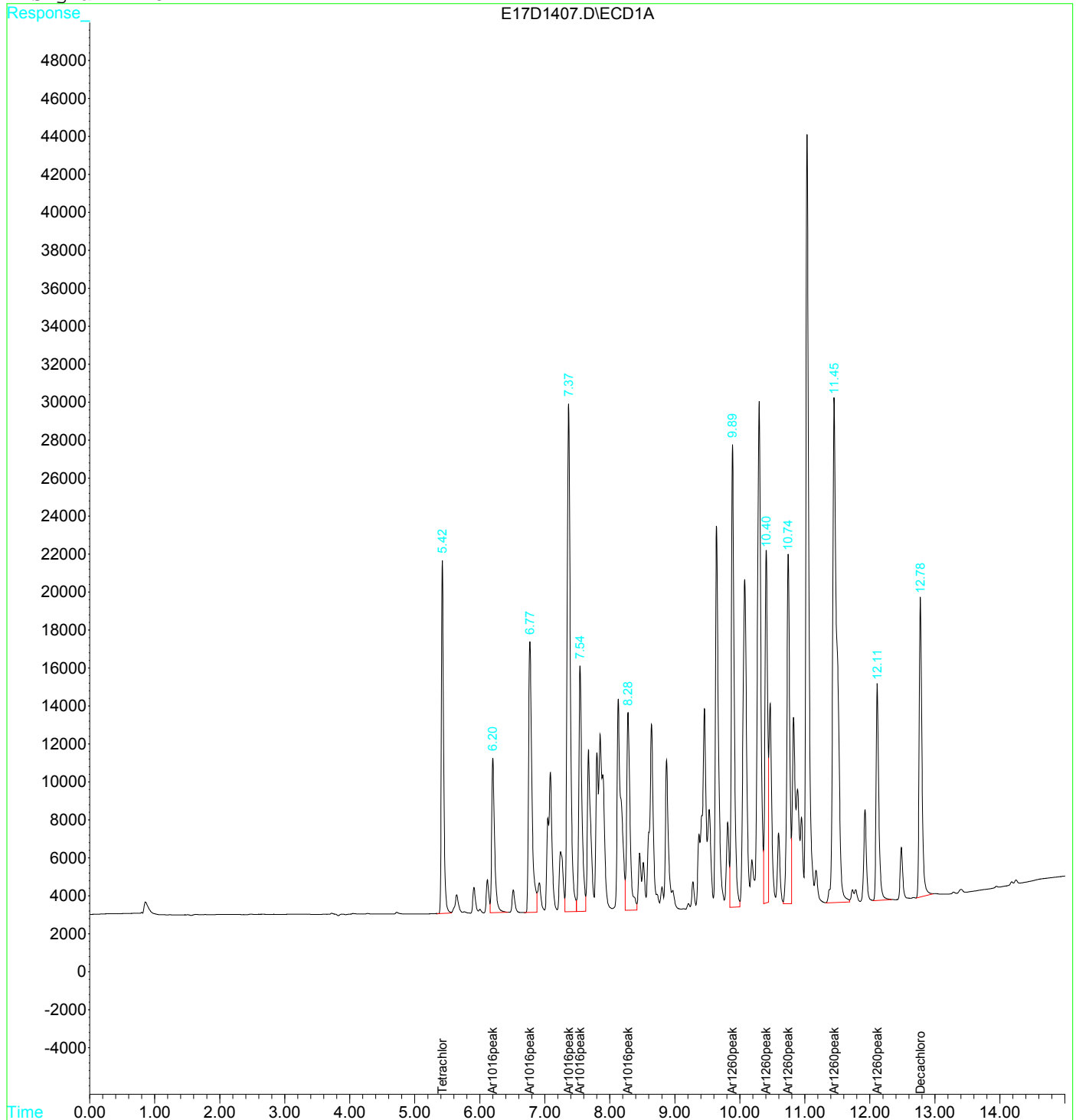
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	443623	0.064 ug/ml
2) S Decachlorobiphenyl	12.78f	470295	0.060 ug/ml
Target Compounds			
3) Ar1016peak1	6.20	253192	1.410 ug/ml
4) Ar1016peak2	6.77	507047	1.368 ug/ml
5) Ar1016peak3	7.37	931348	1.427 ug/ml
6) Ar1016peak4	7.54	423254	1.430 ug/ml
7) Ar1016peak5	8.28	375055	1.596 ug/ml
8) Ar1260peak1	9.89f	736496	1.358 ug/ml
9) Ar1260peak2	10.40	517881	1.477 ug/mlm2
10) Ar1260peak3	10.74	550327	1.547 ug/mlm2
11) Ar1260peak4	11.45	1246533	1.650 ug/ml
12) Ar1260peak5	12.11	331209	1.848 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D14\E17D1407.D Vial: 6
 Acq On : 14 Apr 2017 10:38 am Operator: PJK
 Sample : SEQ-CAL6 Inst : ECD3
 Misc : PCB 1.5 92786 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:16 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D14\E17D1408.D Vial: 7
Acq On : 14 Apr 2017 10:57 am Operator: PJK
Sample : SEQ-CAL7 Inst : ECD3
Misc : PCB 2.0 92787 Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 14 14:19 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
Last Update : Mon Jan 09 10:58:33 2017
Response via : Initial Calibration
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

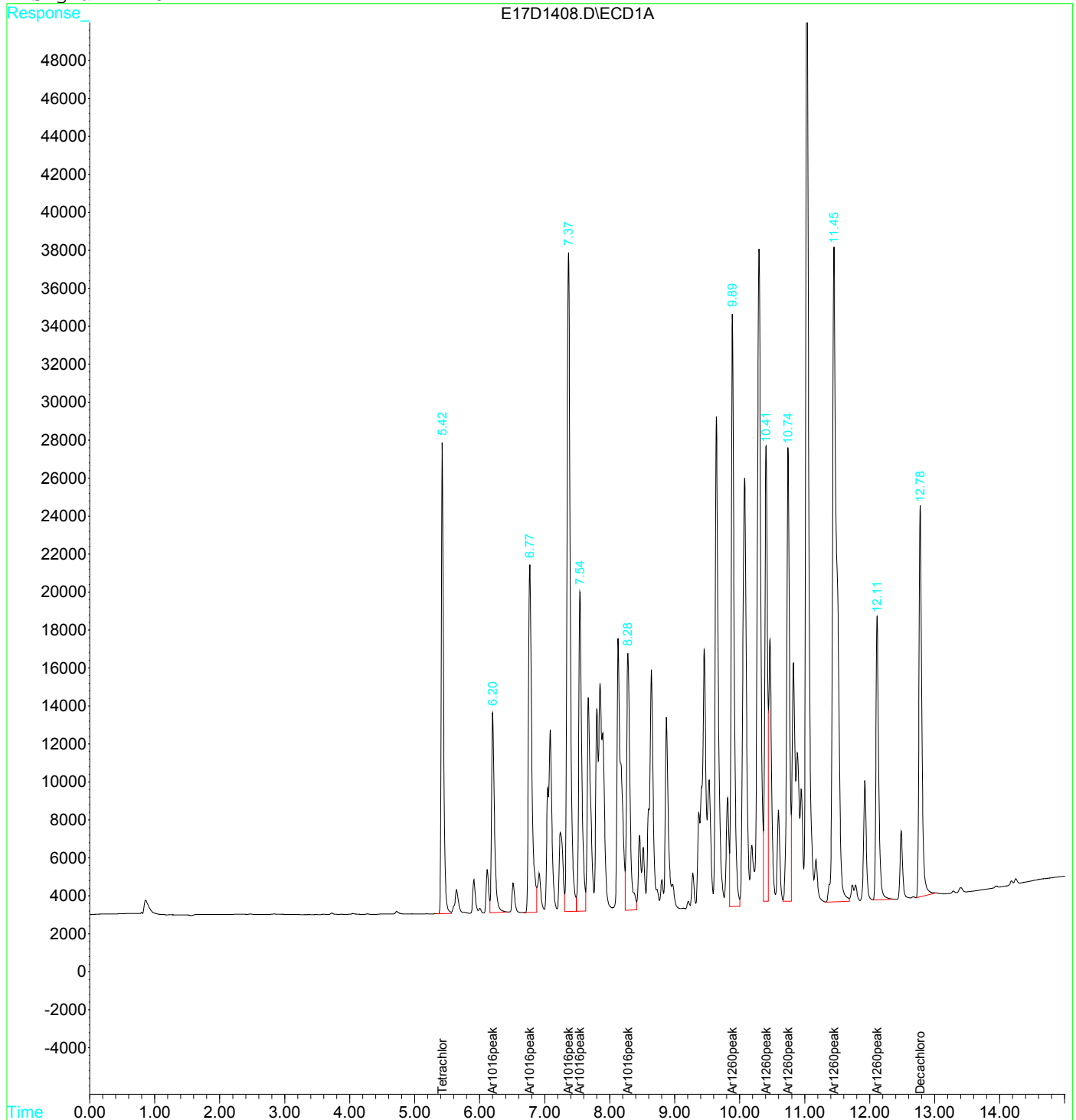
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	599795	0.087 ug/ml
2) S Decachlorobiphenyl	12.78f	621164	0.079 ug/ml
Target Compounds			
3) Arl016peak1	6.20	326807	1.819 ug/ml
4) Arl016peak2	6.77	652956	1.762 ug/ml
5) Arl016peak3	7.37	1212300	1.858 ug/ml
6) Arl016peak4	7.54	548940	1.855 ug/ml
7) Arl016peak5	8.28	488600	2.080 ug/ml
8) Arl260peak1	9.89f	950837	1.754 ug/ml
9) Arl260peak2	10.41	669066	1.908 ug/mlm2
10) Arl260peak3	10.74	711400	2.000 ug/mlm2
11) Arl260peak4	11.45	1644141	2.177 ug/ml
12) Arl260peak5	12.11	440469	2.457 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D14\E17D1408.D Vial: 7
 Acq On : 14 Apr 2017 10:57 am Operator: PJK
 Sample : SEQ-CAL7 Inst : ECD3
 Misc : PCB 2.0 92787 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:19 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Mon Jan 09 10:58:33 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D14\E17D1409.D Vial: 8
Acq On : 14 Apr 2017 11:16 am Operator: PJK
Sample : SEQ-ICV1 Inst : ECD3
Misc : PCB ICV 87120 Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 14 14:24 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
Last Update : Fri Apr 14 14:22:46 2017
Response via : Initial Calibration
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

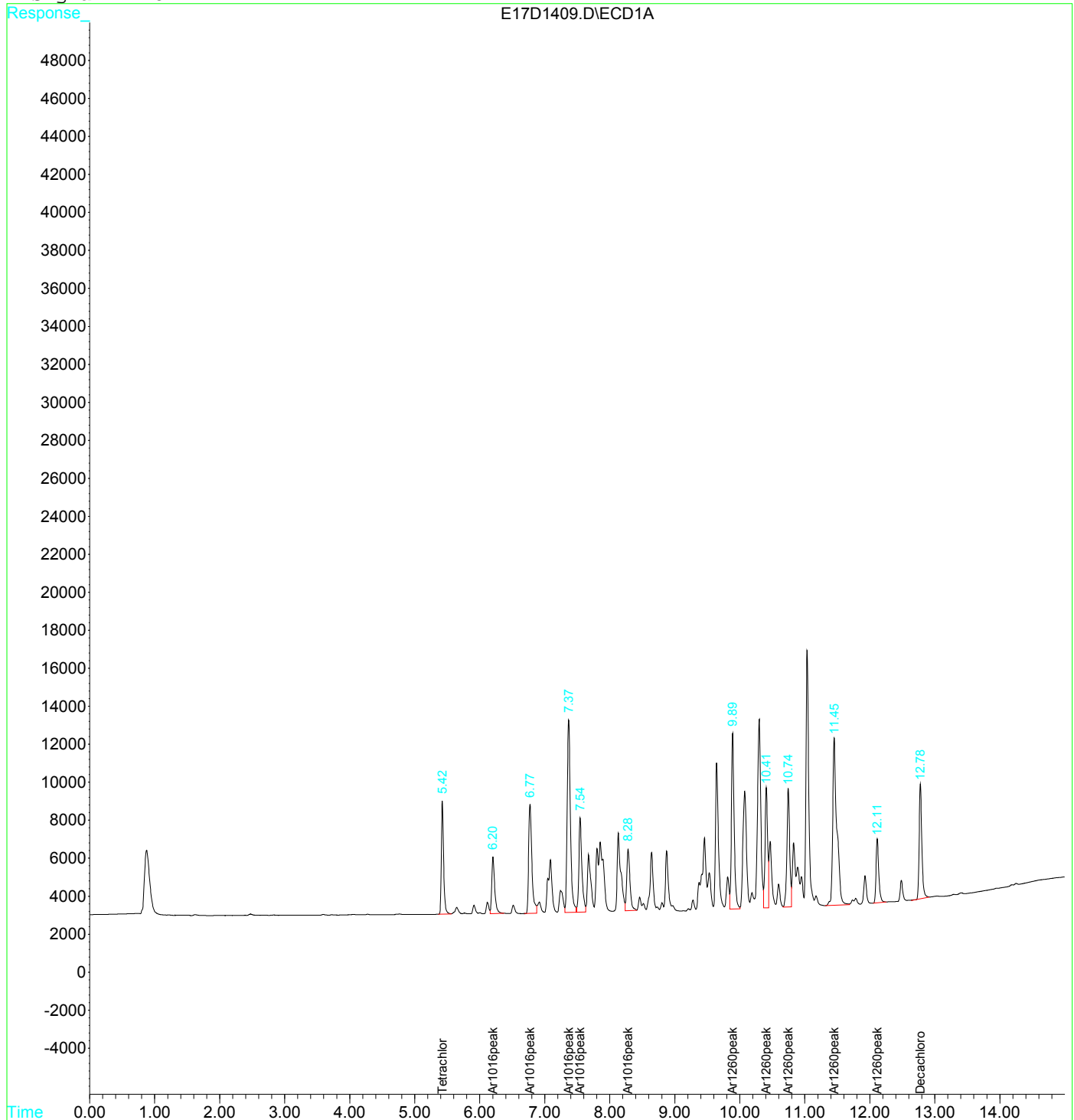
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.43	144366	0.021 ug/ml
2) S Decachlorobiphenyl	12.78	171827	0.022 ug/ml
Target Compounds			
3) Arl016peak1	6.20	93113	0.535 ug/ml
4) Arl016peak2	6.77	200162	0.551 ug/ml
5) Arl016peak3	7.37	352771	0.555 ug/ml
6) Arl016peak4	7.55	161443	0.553 ug/ml
7) Arl016peak5	8.28	110499	0.460 ug/ml
8) Arl260peak1	9.89	272357	0.528 ug/ml
9) Arl260peak2	10.41	177399	0.480 ug/ml
10) Arl260peak3	10.75	184177	0.496 ug/ml
11) Arl260peak4	11.45	389833	0.481 ug/ml
12) Arl260peak5	12.12	97248	0.446 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D14\E17D1409.D Vial: 8
 Acq On : 14 Apr 2017 11:16 am Operator: PJK
 Sample : SEQ-ICV1 Inst : ECD3
 Misc : PCB ICV 87120 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 14 14:24 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D21\E17D2102.D Vial: 1
 Acq On : 21 Apr 2017 8:36 am Operator: PJK
 Sample : SEQ-CCV1 Inst : ECD3
 Misc : PCB 0.5 92784 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 12:59 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Initial Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

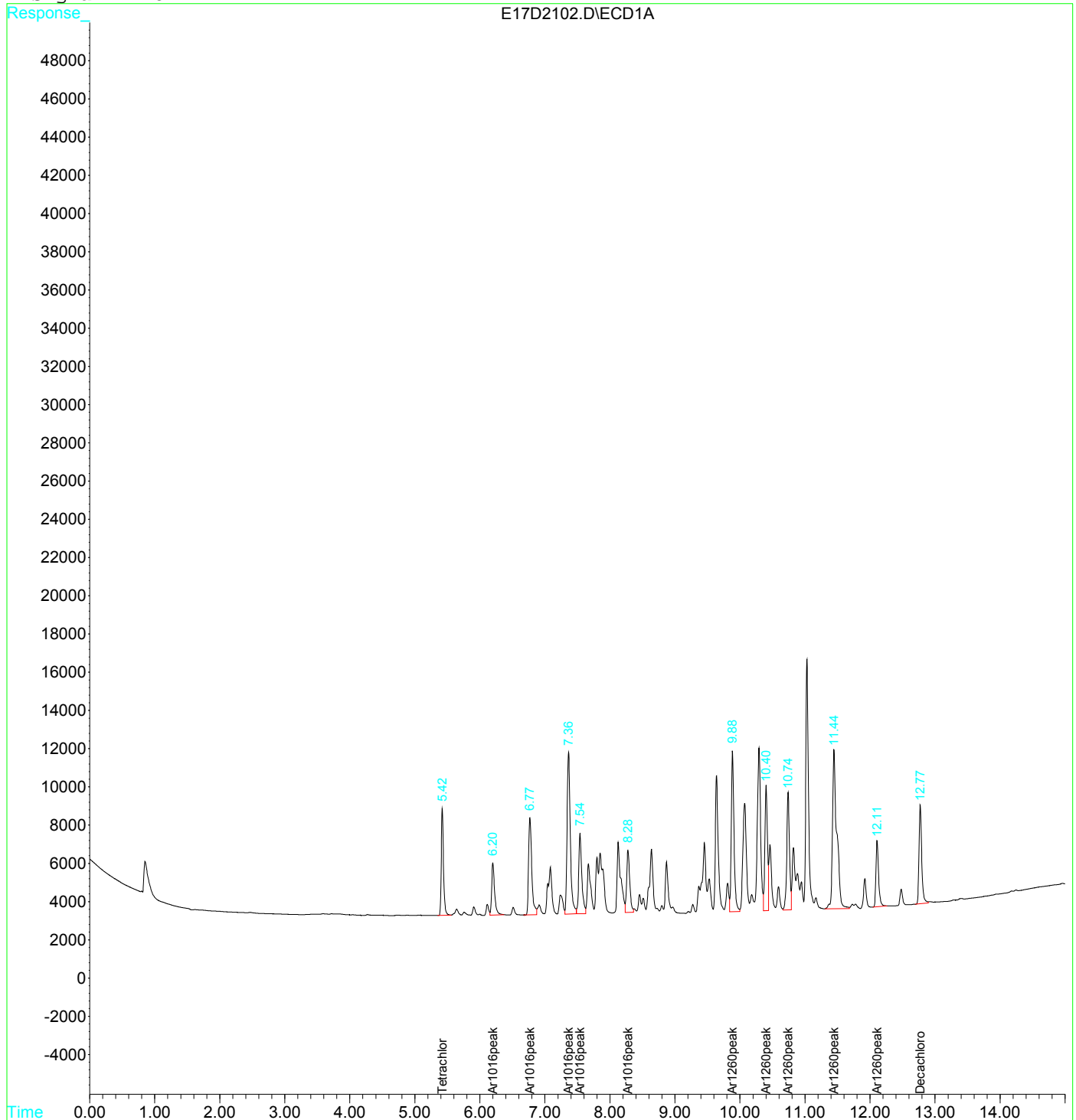
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	131225	0.019 ug/ml
2) S Decachlorobiphenyl	12.77	149557	0.019 ug/mlm3
Target Compounds			
3) Arl016peak1	6.20	84443	0.485 ug/ml
4) Arl016peak2	6.77	174250	0.480 ug/ml
5) Arl016peak3	7.37	294956	0.464 ug/ml
6) Arl016peak4	7.54	138392	0.474 ug/ml
7) Arl016peak5	8.28	107117	0.446 ug/ml
8) Arl260peak1	9.89	243938	0.473 ug/ml
9) Arl260peak2	10.40	182075	0.492 ug/ml
10) Arl260peak3	10.74	178094	0.479 ug/ml
11) Arl260peak4	11.45	381533	0.470 ug/ml
12) Arl260peak5	12.11	97335	0.447 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2102.D Vial: 1
 Acq On : 21 Apr 2017 8:36 am Operator: PJK
 Sample : SEQ-CCV1 Inst : ECD3
 Misc : PCB 0.5 92784 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 12:59 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2115.D Vial: 12
 Acq On : 21 Apr 2017 12:45 pm Operator: PJK
 Sample : SEQ-CCV2 Inst : ECD3
 Misc : PCB 1.0 92785 Multiplr: 1.00
 IntFile : events.e

Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 S	Tetrachloro-m-xylene	6.848	7.286 E6	-6.4	103	0.00
2 S	Decachlorobiphenyl	7.940	7.973 E6	-0.4	102	0.00
3	Arl016peak1	173.981	176.313 E3	-1.3	103	0.00
4	Arl016peak2	363.128	355.208 E3	2.2	103	0.00
5	Arl016peak3	635.813	641.738 E3	-0.9	103	0.00
6	Arl016peak4	292.166	293.404 E3	-0.4	103	0.00
7	Arl016peak5	240.151	253.061 E3	-5.4	102	0.00
8	Arl260peak1	516.081	505.423 E3	2.1	102	0.00
9	Arl260peak2	369.777	368.145 E3	0.4	104	0.00
10	Arl260peak3	371.480	371.948 E3	-0.1	103	0.00
11	Arl260peak4	811.231	831.252 E3	-2.5	102	0.00
12	Arl260peak5	217.861	217.335 E3	0.2	101	0.00

Evaluate Continuing Calibration Report - Not Found

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2115.D Vial: 12
 Acq On : 21 Apr 2017 12:45 pm Operator: PJK
 Sample : SEQ-CCV2 Inst : ECD3
 Misc : PCB 1.0 92785 Multiplr: 1.00
 IntFile : events.e

Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
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Data File : C:\HPCHEM\1\DATA\E17D21\E17D2115.D Vial: 12
 Acq On : 21 Apr 2017 12:45 pm Operator: PJK
 Sample : SEQ-CCV2 Inst : ECD3
 Misc : PCB 1.0 92785 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:05 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Initial Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

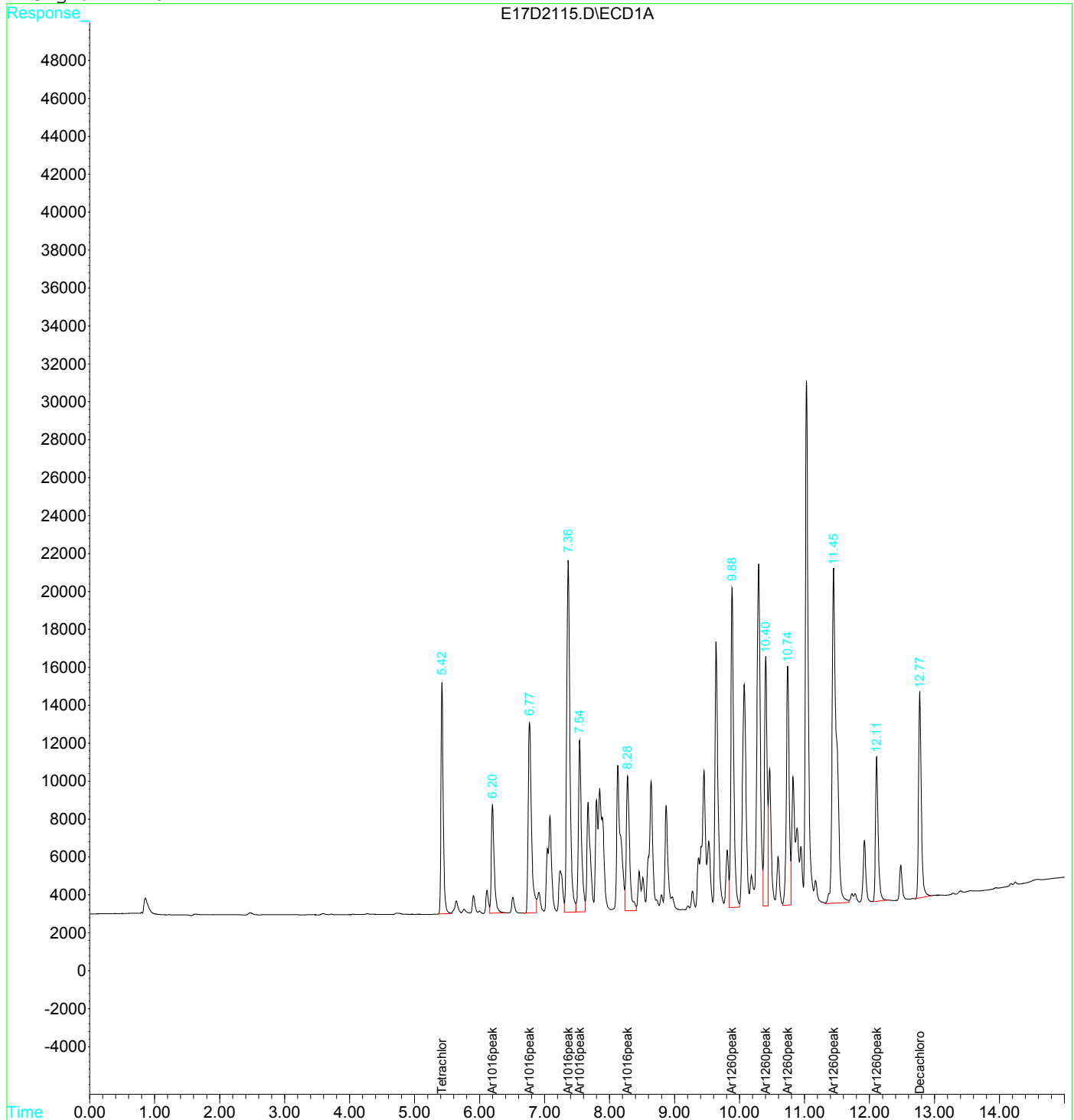
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	291447	0.043 ug/ml
2) S Decachlorobiphenyl	12.77	318917	0.040 ug/ml
Target Compounds			
3) Arl016peak1	6.20	176313	1.013 ug/ml
4) Arl016peak2	6.77	355208	0.978 ug/ml
5) Arl016peak3	7.36	641738	1.009 ug/ml
6) Arl016peak4	7.54	293404	1.004 ug/ml
7) Arl016peak5	8.28	253061	1.054 ug/ml
8) Arl260peak1	9.89	505423	0.979 ug/ml
9) Arl260peak2	10.40	368145	0.996 ug/ml
10) Arl260peak3	10.74	371948	1.001 ug/ml
11) Arl260peak4	11.45	831252	1.025 ug/ml
12) Arl260peak5	12.11	217335	0.998 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2115.D Vial: 12
 Acq On : 21 Apr 2017 12:45 pm Operator: PJK
 Sample : SEQ-CCV2 Inst : ECD3
 Misc : PCB 1.0 92785 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:05 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2116.D Vial: 13
 Acq On : 21 Apr 2017 1:03 pm Operator: PJK
 Sample : SEQ-CCV3 Inst : ECD3
 Misc : AR 1248 92560 Multiplr: 1.00
 IntFile : events.e

Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
 Title : ECD#3-COL A-CLP2-AR1248
 Last Update : Mon Apr 17 15:43:47 2017
 Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 S	Tetrachloro-m-xylene	0.020	0.021	-5.0	103	0.00
2 S	Decachlorobiphenyl	0.020	0.020	0.0	102	0.00
3	Ar1248peak1	0.500	0.505	-1.0	101	0.00
4	Ar1248peak2	0.500	0.498	0.4	100	0.00
5	Ar1248peak3	0.500	0.511	-2.2	102	0.00
6	Ar1248peak4	0.500	0.510	-2.0	102	0.00
7	Ar1248peak5	0.500	0.485	3.0	97	0.00

Evaluate Continuing Calibration Report - Not Found

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2116.D Vial: 13
 Acq On : 21 Apr 2017 1:03 pm Operator: PJK
 Sample : SEQ-CCV3 Inst : ECD3
 Misc : AR 1248 92560 Multiplr: 1.00
 IntFile : events.e

Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
 Title : ECD#3-COL A-CLP2-AR1248
 Last Update : Mon Apr 17 15:43:47 2017
 Response via : Single Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
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Data File : C:\HPCHEM\1\DATA\E17D21\E17D2116.D Vial: 13
Acq On : 21 Apr 2017 1:03 pm Operator: PJK
Sample : SEQ-CCV3 Inst : ECD3
Misc : AR 1248 92560 Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 21 13:19 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
Title : ECD#3-COL A-CLP2-AR1248
Last Update : Mon Apr 17 15:43:47 2017
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\E17D13\E17D1314.D
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

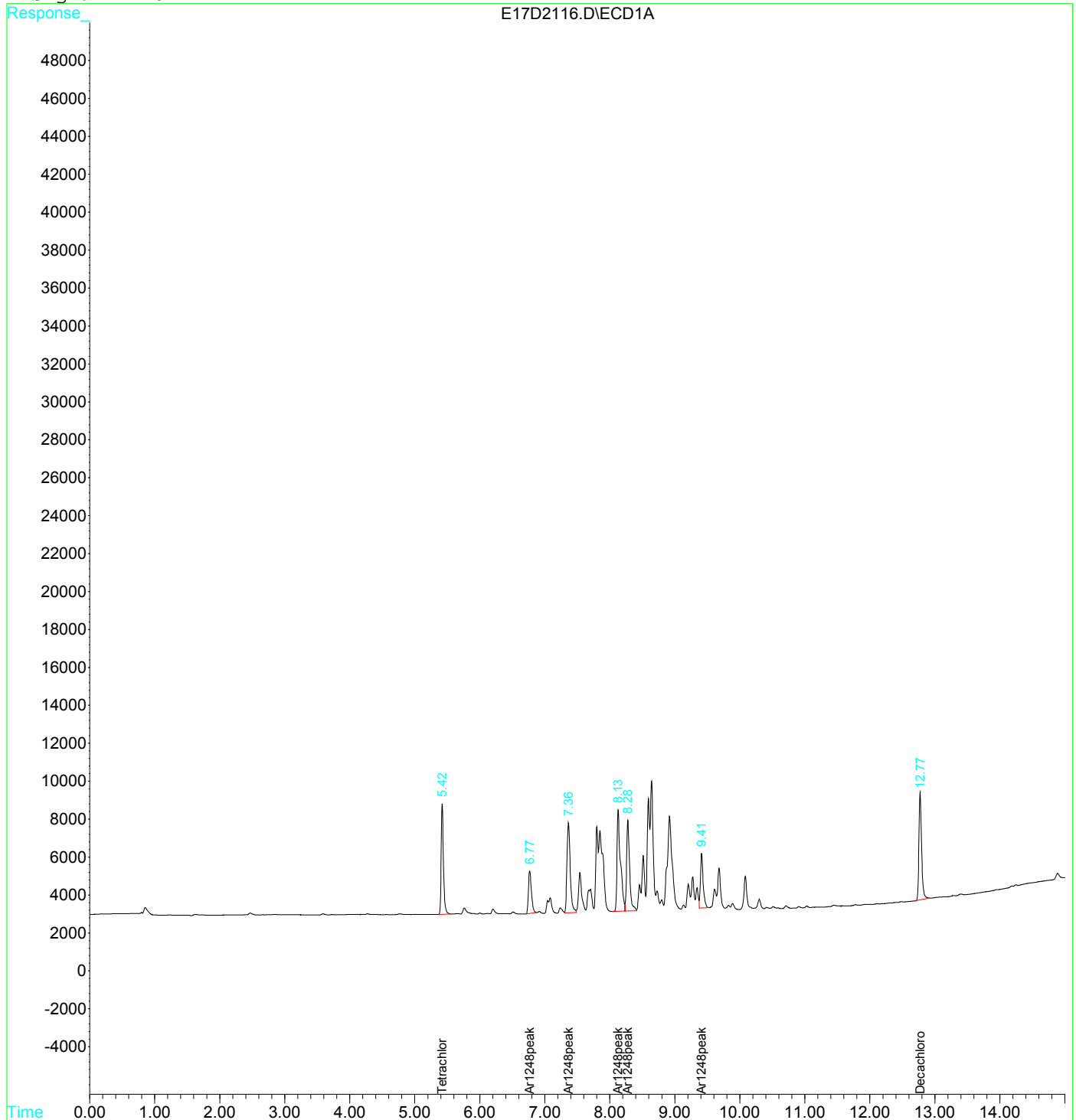
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	140025	0.021 ug/ml
Spiked Amount 0.020	Recovery	=	105.00%
2) S Decachlorobiphenyl	12.77	163377	0.020 ug/ml
Spiked Amount 0.020	Recovery	=	100.00%
Target Compounds			
3) Ar1248peak1	6.77	71928	0.505 ug/ml
4) Ar1248peak2	7.36	166483	0.498 ug/ml
5) Ar1248peak3	8.13	197009	0.511 ug/ml
6) Ar1248peak4	8.28	155043	0.510 ug/ml
7) Ar1248peak5	9.41	84324	0.485 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2116.D Vial: 13
 Acq On : 21 Apr 2017 1:03 pm Operator: PJK
 Sample : SEQ-CCV3 Inst : ECD3
 Misc : AR 1248 92560 Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:19 2017 Quant Results File: E1248.RES

Quant Method : C:\HPCHEM\1\METHODS\E1248.M (Chemstation Integrator)
 Title : ECD#3-COL A-CLP2-AR1248
 Last Update : Mon Apr 17 15:43:47 2017
 Response via : Single Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



PCB QC FORM I AND RAW DATA

METHOD BLANK DATA SHEET

EPA 608 Rev 7/95

Laboratory: Microbac Laboratories, Inc. - Chicagoland SDG: 17D1149
 Client: IDEM - Indianapolis, IN Project: OL - OL
 Matrix: Aqueous Laboratory ID: B101502-BLK2 File ID: E17D2103.D
 Prepared: 04/21/17 05:49 Preparation: 608PW Initial/Final: 1000 ml / 10 ml
 Analyzed: 04/21/17 08:55 Instrument: ECD-3
 Batch: B101502 Sequence: S034341 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (µg/L)	Q
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	1.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U
37324-23-5	Aroclor 1262	1.0	U
11100-14-4	Aroclor 1268	1.0	U
	Total PCB's	1.0	U

SYSTEM MONITORING COMPOUND	ADDED (µg/L)	CONC (µg/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	0.2000	0.13	65.0	25.7 - 116	
Tetrachloro-m-xylene	0.2000	0.090	45.0	39.7 - 130	

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2103.D Vial: 2
Acq On : 21 Apr 2017 8:55 am Operator: PJK
Sample : B101502-BLK2 Inst : ECD3
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 21 12:57 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
Last Update : Fri Apr 14 14:22:46 2017
Response via : Initial Calibration
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

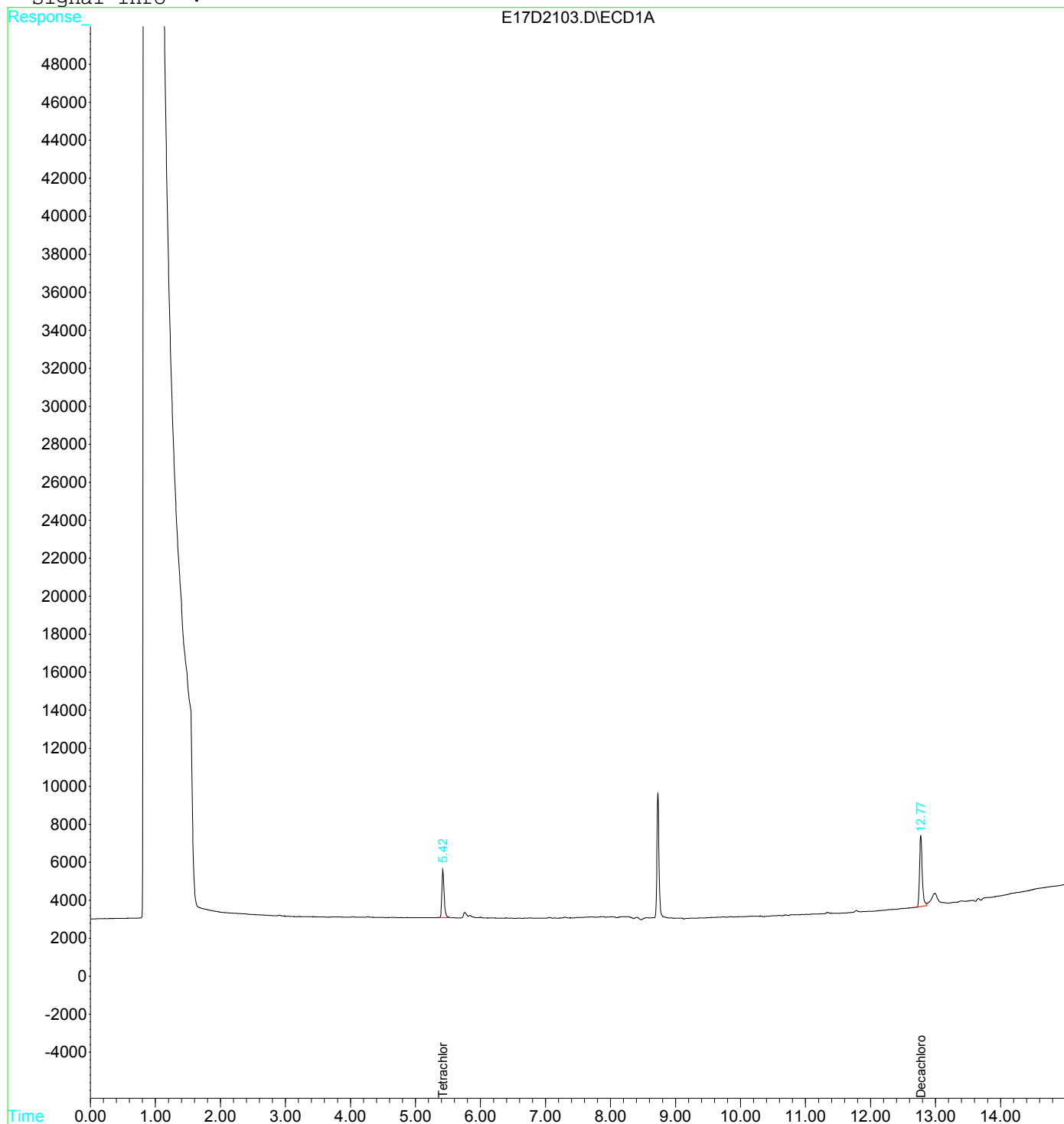
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	61128	0.009 ug/ml
2) S Decachlorobiphenyl	12.77	106799	0.013 ug/ml
Target Compounds			
3) Arl016peak1	0.00	0	N.D. ug/ml
4) Arl016peak2	0.00	0	N.D. ug/ml
5) Arl016peak3	0.00	0	N.D. ug/ml
6) Arl016peak4	0.00	0	N.D. ug/ml
7) Arl016peak5	0.00	0	N.D. ug/ml
8) Arl260peak1	0.00	0	N.D. ug/ml
9) Arl260peak2	0.00	0	N.D. ug/ml
10) Arl260peak3	0.00	0	N.D. ug/ml
11) Arl260peak4	0.00	0	N.D. ug/ml
12) Arl260peak5	0.00	0	N.D. ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2103.D Vial: 2
 Acq On : 21 Apr 2017 8:55 am Operator: PJK
 Sample : B101502-BLK2 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 12:57 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D21\E17D2104.D Vial: 3
Acq On : 21 Apr 2017 9:14 am Operator: PJK
Sample : B101502-BS2 Inst : ECD3
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 21 12:57 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
Last Update : Fri Apr 14 14:22:46 2017
Response via : Initial Calibration
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

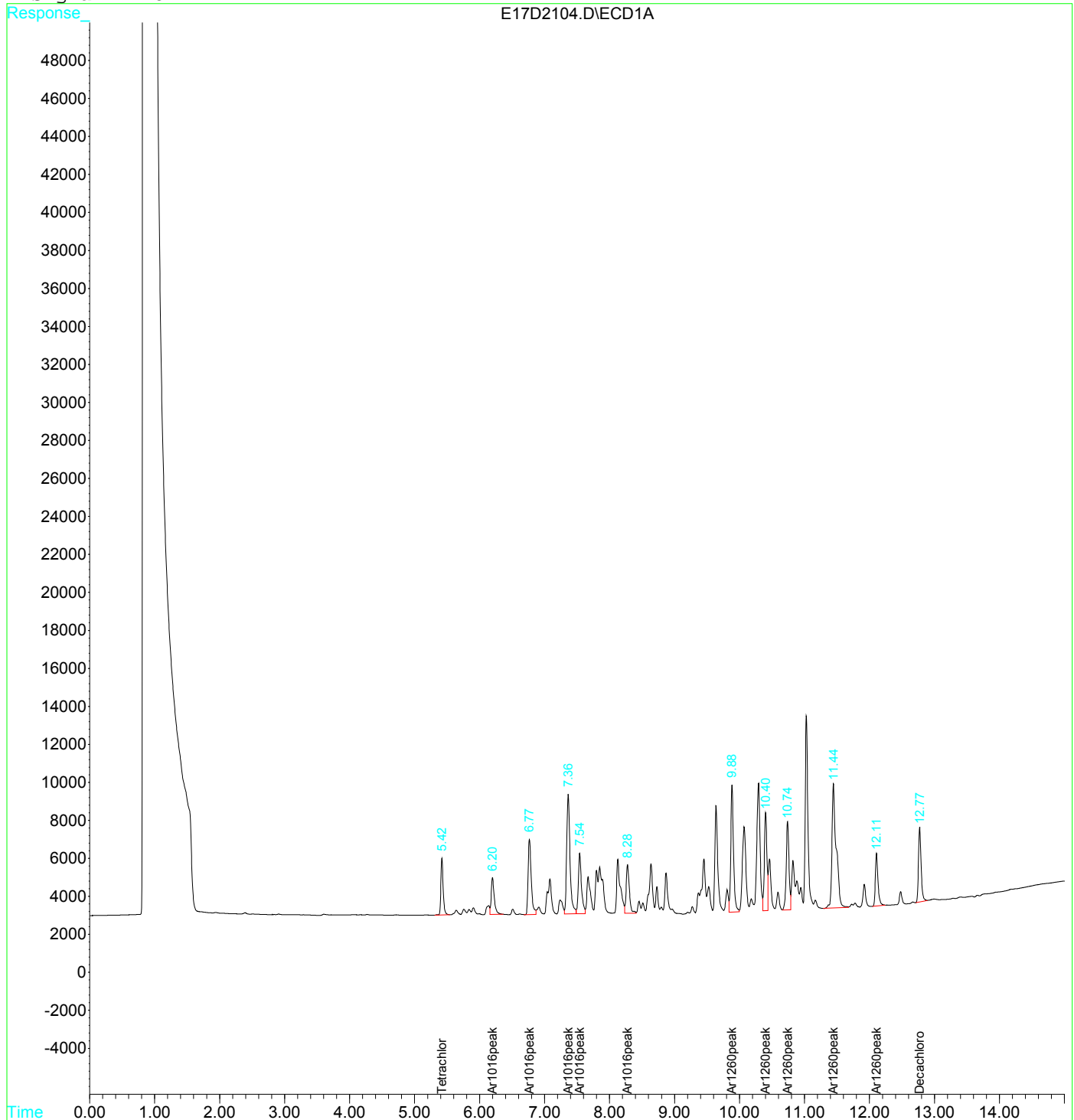
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	73214	0.011 ug/ml
2) S Decachlorobiphenyl	12.77	111291	0.014 ug/ml
Target Compounds			
3) Arl016peak1	6.20	62868	0.361 ug/ml
4) Arl016peak2	6.77	132974	0.366 ug/ml
5) Arl016peak3	7.36	224109	0.352 ug/ml
6) Arl016peak4	7.54	106424	0.364 ug/ml
7) Arl016peak5	8.28	87702	0.365 ug/ml
8) Arl260peak1	9.89	196202	0.380 ug/ml
9) Arl260peak2	10.40	142997	0.387 ug/ml
10) Arl260peak3	10.74	136025	0.366 ug/ml
11) Arl260peak4	11.45	298588	0.368 ug/ml
12) Arl260peak5	12.11	78402	0.360 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2104.D Vial: 3
 Acq On : 21 Apr 2017 9:14 am Operator: PJK
 Sample : B101502-BS2 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 12:57 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D21\E17D2112.D Vial: 10
 Acq On : 21 Apr 2017 11:48 am Operator: PJK
 Sample : B101502-MS2 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:04 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Initial Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

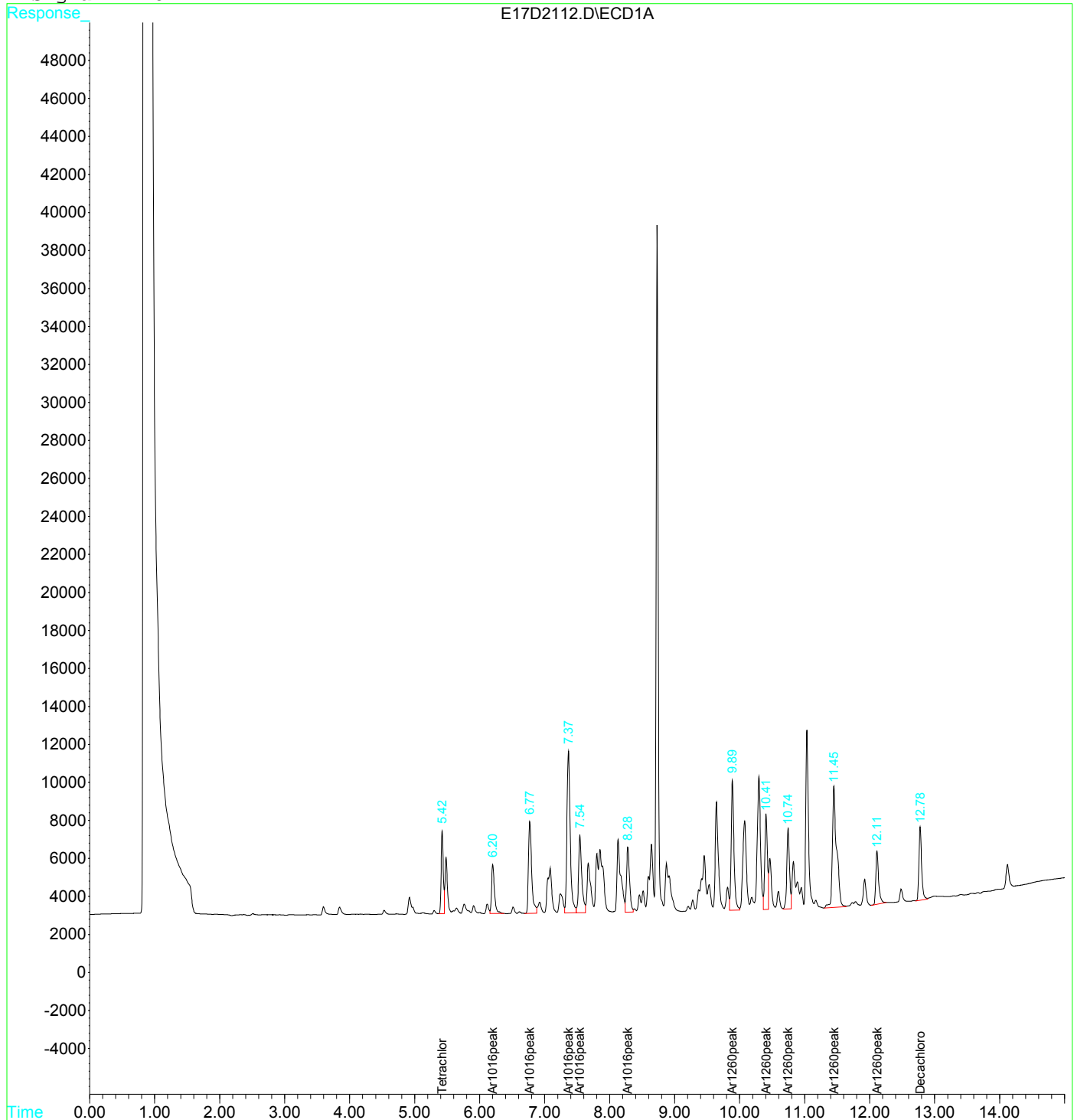
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	97453	0.014 ug/ml
2) S Decachlorobiphenyl	12.78	111540	0.014 ug/mlm3
Target Compounds			
3) Arl016peak1	6.20	78972	0.454 ug/ml
4) Arl016peak2	6.77	166563	0.459 ug/ml
5) Arl016peak3	7.37	300603	0.473 ug/ml
6) Arl016peak4	7.54	139064	0.476 ug/ml
7) Arl016peak5	8.28	111780	0.465 ug/ml
8) Arl260peak1	9.89	201436	0.390 ug/ml
9) Arl260peak2	10.41	141094	0.382 ug/ml
10) Arl260peak3	10.75	120914	0.325 ug/ml
11) Arl260peak4	11.45	289818	0.357 ug/ml
12) Arl260peak5	12.11	83224	0.382 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2112.D Vial: 10
 Acq On : 21 Apr 2017 11:48 am Operator: PJK
 Sample : B101502-MS2 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:04 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\E17D21\E17D2113.D Vial: 11
Acq On : 21 Apr 2017 12:07 pm Operator: PJK
Sample : B101502-MSD2 Inst : ECD3
Misc : Multiplr: 1.00
IntFile : events.e
Quant Time: Apr 21 13:04 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
Title : ***04/14/2017-ECD#3-Col E-CLP2-Arl660-8082/608
Last Update : Fri Apr 14 14:22:46 2017
Response via : Initial Calibration
DataAcq Meth : ECD3.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

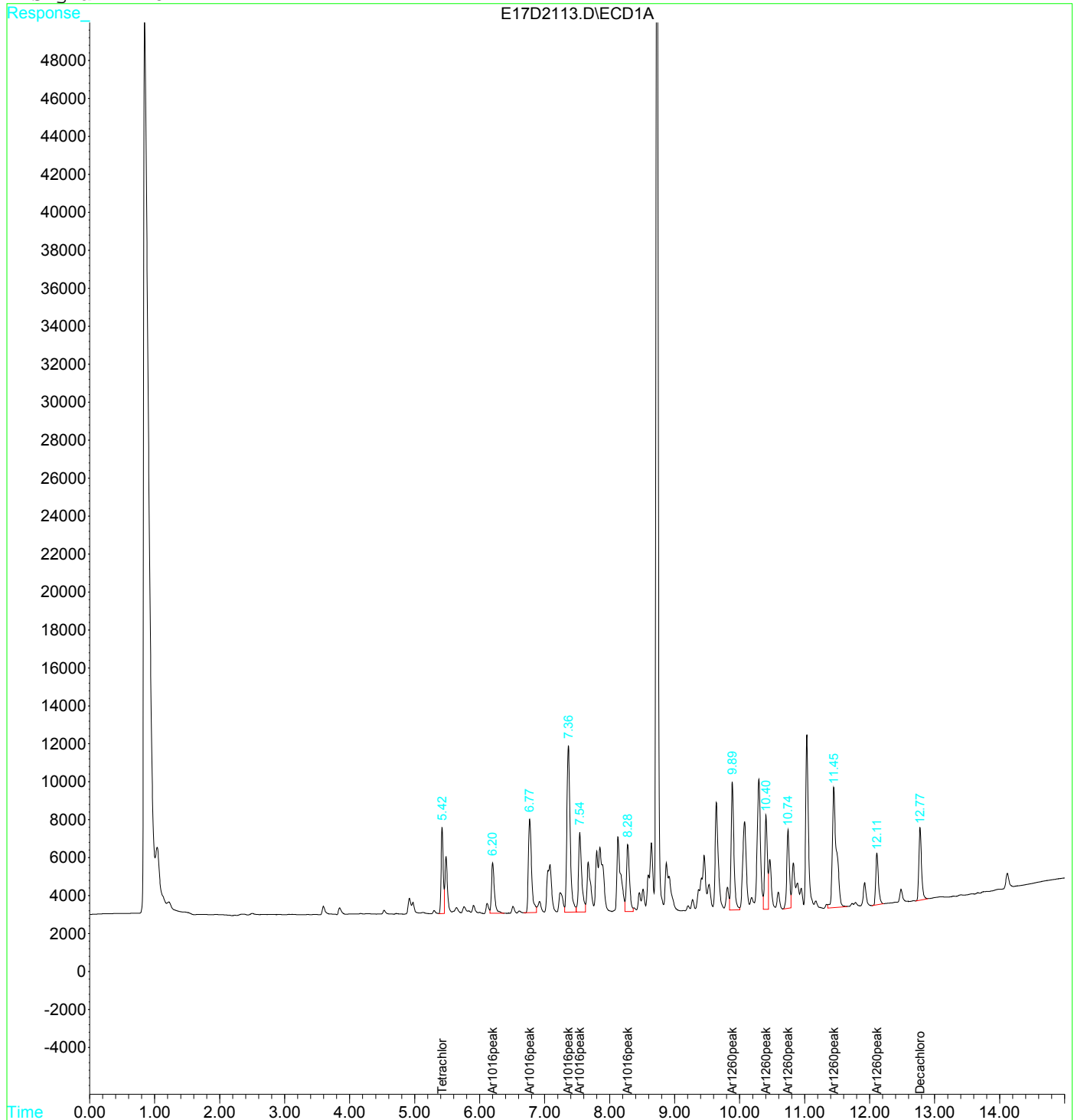
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.42	101165	0.015 ug/ml
2) S Decachlorobiphenyl	12.77	109394	0.014 ug/mlm3
Target Compounds			
3) Arl016peak1	6.20	82122	0.472 ug/ml
4) Arl016peak2	6.77	168461	0.464 ug/ml
5) Arl016peak3	7.37	309053	0.486 ug/ml
6) Arl016peak4	7.54	142908	0.489 ug/ml
7) Arl016peak5	8.28	115127	0.479 ug/ml
8) Arl260peak1	9.89	200294	0.388 ug/ml
9) Arl260peak2	10.41	139024	0.376 ug/ml
10) Arl260peak3	10.74	114836	0.309 ug/ml
11) Arl260peak4	11.45	278702	0.344 ug/ml
12) Arl260peak5	12.11	76199	0.350 ug/ml

Quantitation Report

Data File : C:\HPCHEM\1\DATA\E17D21\E17D2113.D Vial: 11
 Acq On : 21 Apr 2017 12:07 pm Operator: PJK
 Sample : B101502-MSD2 Inst : ECD3
 Misc : Multiplr: 1.00
 IntFile : events.e
 Quant Time: Apr 21 13:04 2017 Quant Results File: EPCB0414.RES

Quant Method : C:\HPCHEM\1\METHODS\EPCB0414.M (Chemstation Integrator)
 Title : ***04/14/2017-ECD#3-Col E-CLP2-Ar1660-8082/608
 Last Update : Fri Apr 14 14:22:46 2017
 Response via : Multiple Level Calibration
 DataAcq Meth : ECD3.M

Volume Inj. :
 Signal Phase :
 Signal Info :



PCB EXTRACTION LOG(S)/ INJECTION LOG(S)

PREPARATION BENCH SHEET

B101502

Microbac Laboratories, Inc. - Chicagoland

Matrix: Aqueous

Prepared using: GC Semivolatiles - 608PW

Printed: 4/24/2017 6:00:56AM

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
17A0730-07RE3 8081	04/21/2017 05:49	1000	10				Added 4/11/2017 By ALS Added 4/11/2017 By ALS
17A0730-08RE3 8081	04/21/2017 05:49	1000	10				Added 4/11/2017 By ALS Added 4/11/2017 By ALS
17A0730-09RE3 8081	04/21/2017 05:49	1000	10				Added 4/11/2017 By ALS Added 4/11/2017 By ALS
17D0832-01RE1 608	04/21/2017 05:49	990	10				Added 4/20/2017 By PJK Added 4/20/2017 By PJK
17D0938-02RE1 608	04/21/2017 05:49	1080	10				Added 4/20/2017 By PJK Added 4/20/2017 By PJK
17D1149-01 608_PCB	04/21/2017 05:49	990	5				
17D1149-02 8082	04/21/2017 05:49 608	940	5 608_PCB				Added for BatchQC in: B101502 BatchQC
17D1149-03 608_PCB	04/21/2017 05:49	880	5	8081			
17D1149-04 608_PCB	04/21/2017 05:49	760	5				
17D1149-05 608_PCB	04/21/2017 05:49	980	5				
17D1158-01 8082	04/21/2017 05:49	980	10			PCB	PCB
B101502-BLK1	04/21/2017 05:49	1000	10				
B101502-BLK2	04/21/2017 05:49	1000	10				
B101502-BS1	04/21/2017 05:49	1000	10	0093184		1000	
B101502-BS2	04/21/2017 05:49	1000	10				
B101502-BSD1	04/21/2017 05:49	1000	10	0093184		1000	

Spiking Witnessed By _____ Date _____

Preparation Reviewed By _____ Date _____

Extracts Received By _____ Date _____

PREPARATION BENCH SHEET

B101502

Microbac Laboratories, Inc. - Chicagoland

Matrix: Aqueous

Prepared using: GC Semivolatiles - 608PW

Printed: 4/24/2017 6:00:56AM

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
B101502-MS2	04/21/2017 05:49	490	10		17D1149-02		
B101502-MSD2	04/21/2017 05:49	470	10		17D1149-02		

Spiking Witnessed By _____ Date _____

Preparation Reviewed By _____ Date _____

Extracts Received By _____ Date _____

Injection Log

Directory: C:\HPCHEM\1\DATA\E17D21

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	E17D2101.D	1.	RINSE		21 Apr 2017 07:50
2	1	E17D2102.D	1.	SEQ-CCV1	PCB 0.5 92784	21 Apr 2017 08:36
3	2	E17D2103.D	1.	B101502-BLK2		21 Apr 2017 08:55
4	3	E17D2104.D	1.	B101502-BS2		21 Apr 2017 09:14
5	4	E17D2105.D	1.	17D1149-01		21 Apr 2017 09:33
6	5	E17D2106.D	1.	17D1149-02		21 Apr 2017 09:52
7	6	E17D2107.D	1.	17D1149-03		21 Apr 2017 10:11
8	7	E17D2108.D	1.	17D1149-04		21 Apr 2017 10:30
9	8	E17D2109.D	1.	17D1149-05		21 Apr 2017 10:52
10	7	E17D2110.D	5.	17D1149-04		21 Apr 2017 11:11
11	9	E17D2111.D	1.	17D1158-01		21 Apr 2017 11:29
12	10	E17D2112.D	1.	B101502-MS2		21 Apr 2017 11:48
13	11	E17D2113.D	1.	B101502-MSD2		21 Apr 2017 12:07
14	100	E17D2114.D	1.	RINSE		21 Apr 2017 12:26
15	12	E17D2115.D	1.	SEQ-CCV2	PCB 1.0 92785	21 Apr 2017 12:45
16	13	E17D2116.D	1.	SEQ-CCV3	AR 1248 92560	21 Apr 2017 13:03
17	14	E17D2117.D	1.	B101545-BLK1		21 Apr 2017 13:45
18	15	E17D2118.D	1.	B101545-BS1		21 Apr 2017 14:03
19	16	E17D2119.D	1.	B101545-BSD1		21 Apr 2017 14:22
20	17	E17D2120.D	1.	17D1128-02		21 Apr 2017 14:41
21	18	E17D2121.D	1.	SEQ-CCV4	PCB 1.0 92785	21 Apr 2017 15:00

ANALYSIS SEQUENCE

S034341

Instrument: ECD-3

Calibration ID: UNASSIGNED

Created: 04/21/2017 08:36

Printed: 4/24/2017 6:04:55AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
S034341-CCV1	QC		1		0092784		
B101502-BLK2	QC		2				
B101502-BS2	QC		3				
17D1149-01	608_PCB	A	4				
17D1149-02	8082	A	5				BatchQC
17D1149-02	608_PCB	A	6				
17D1149-02	608	A	7				BatchQC
17D1149-03	608_PCB	A	8				
17D1149-05	608_PCB	A	9				
17D1149-04	608_PCB	A	10				
17D1158-01	8082	G	11				PCB
B101502-MS2	QC		12				
B101502-MSD2	QC		13				
S034341-CCV2	QC		14		0092785		
S034341-CCV3	QC		15		0092560		
B101545-BLK1	QC		16				
B101545-BS1	QC		17				
B101545-BSD1	QC		18				
17D1128-02	8082_TC	A	19				Extract sufficient sample to yield 500mL to hit RL requirements
S034341-CCV4	QC		20		0092785		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

CHAINS OF CUSTODY



Please Send Report to:

IDEM
OLQ Chemistry Section
Attn: QA Officer
MC 66-20 IGCN N1101
100 N Senate Avenue
Indianapolis, IN 46204-2251
www.idem.IN.gov

(2A-2C) SAMPLE INFORMATION			(2D) COUNTS				(2E-2F) ANALYSES REQUESTED								(2G) COMMENTS	(2H-2J) DATE & TIME				
Laboratory Control Number (Lab Use)	IDEM Sample Number	Matrix or Sample Type	Glass Bottles	Plastic Bottles	40 ml Vials	Other											Date	Time	AM	PM
							PCBs													
	OL1566 / 1	WATER	✓				✓										4/19/17	2:15		✓
	OL1567 / 2	WATER	✓				✓										4/19/17	2:36		✓
	OL1568 / 3	WATER	✓				✓							Sample for matrix spike			4/19/17	2:37		✓
	OL1569 / 4	WATER	✓				✓							sample for matrix spike dup			4/19/17	2:38		✓
	OL1570 / 5	WATER	✓				✓										4/19/17	2:52		✓
	OL1571 / 6	WATER	✓				✓										4/19/17	3:26		✓
	OL1572 / 7	WATER	✓				✓										4/19/17	2:04		✓
														Note: Sanitary sewer water. May contain human excrement						

(4) COMMENTS
Action level is 0.3 ppb PCBs

(5) TRANSFER OF CUSTODY - I certify that I received the above samples.		Date	Time
Relinquished by:	Sign <i>Renee G. Wooten</i>	4-20-17	11:25
Received by:	Sign <i>Walter E. [Signature]</i>		AM / PM
Relinquished by:	Sign <i>Walter E. [Signature]</i>	4-20-17	13:27
Received by:	Sign		AM / PM

(6) LABORATORY RECEIPT OF SAMPLES		
I certify that I received the above samples. After recording these samples in the official logbook, they will remain in the custody of competent lab personnel or be secured in a locked area at all times.		
Received by: <small>Sign</small>	Date	Time
Laboratory:		AM / PM
Address:		

(7) DISTRIBUTION: PINK COPY - IDEM Sampler YELLOW COPY - Lab (Keep) WHITE COPY - Lab (To be Returned to IDEM with Data Package)

10/06 Revision

INTERNAL CHAIN OF CUSTODY

Internal COC Log

Storage Location: Sample Receipt

[illegible]

CollectionDate	Client SampleID	Sample Type	Analyte	Conc.	Units	Detection Limit	Detection	AnalyticalMethod	Estimated	Comments
04/19/2017 14:11	OL1566	N	Aroclor 1016	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Aroclor 1221	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Aroclor 1232	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Aroclor 1242	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Aroclor 1248	2.7	µg/L	0.51	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Aroclor 1254	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Aroclor 1260	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Aroclor 1262	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Aroclor 1268	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Decachlorobiphenyl	0.066	µg/L	0.0	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Tetrachloro-m-xylene	0.11	µg/L	0.0	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:11	OL1566	N	Total PCB's	2.7	µg/L	0.51	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Aroclor 1016	0.53	µg/L	0.53	No	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Aroclor 1221	0.53	µg/L	0.53	No	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Aroclor 1232	0.53	µg/L	0.53	No	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Aroclor 1242	0.53	µg/L	0.53	No	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Aroclor 1248	1.7	µg/L	0.53	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Aroclor 1254	0.53	µg/L	0.53	No	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Aroclor 1260	0.53	µg/L	0.53	No	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Aroclor 1262	0.53	µg/L	0.53	No	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Aroclor 1268	0.53	µg/L	0.53	No	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Decachlorobiphenyl	0.1	µg/L	0.0	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Tetrachloro-m-xylene	0.13	µg/L	0.0	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:36	OL1567	N	Total PCB's	1.7	µg/L	0.53	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Aroclor 1016	0.57	µg/L	0.57	No	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Aroclor 1221	0.57	µg/L	0.57	No	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Aroclor 1232	0.57	µg/L	0.57	No	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Aroclor 1242	0.57	µg/L	0.57	No	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Aroclor 1248	5	µg/L	0.57	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Aroclor 1254	0.57	µg/L	0.57	No	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Aroclor 1260	0.57	µg/L	0.57	No	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Aroclor 1262	0.57	µg/L	0.57	No	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Aroclor 1268	0.57	µg/L	0.57	No	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Decachlorobiphenyl	0.12	µg/L	0.0	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Tetrachloro-m-xylene	0.16	µg/L	0.0	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:52	OL1570	N	Total PCB's	5	µg/L	0.57	Yes	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Aroclor 1016	3.3	µg/L	3.3	No	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Aroclor 1221	3.3	µg/L	3.3	No	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Aroclor 1232	3.3	µg/L	3.3	No	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Aroclor 1242	3.3	µg/L	3.3	No	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Aroclor 1248	48	µg/L	3.3	Yes	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Aroclor 1254	3.3	µg/L	3.3	No	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Aroclor 1260	3.3	µg/L	3.3	No	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Aroclor 1262	3.3	µg/L	3.3	No	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Aroclor 1268	3.3	µg/L	3.3	No	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Decachlorobiphenyl	0.099	µg/L	0.0	Yes	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Tetrachloro-m-xylene	0.16	µg/L	0.0	Yes	EPA 608 Rev 7/95	No	
04/19/2017 15:26	OL1571	N	Total PCB's	48	µg/L	1.6	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Aroclor 1016	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Aroclor 1221	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Aroclor 1232	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Aroclor 1242	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Aroclor 1248	6.4	µg/L	0.51	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Aroclor 1254	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Aroclor 1260	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Aroclor 1262	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Aroclor 1268	0.51	µg/L	0.51	No	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Decachlorobiphenyl	0.056	µg/L	0.0	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Tetrachloro-m-xylene	0.11	µg/L	0.0	Yes	EPA 608 Rev 7/95	No	
04/19/2017 14:04	OL1572	N	Total PCB's	6.4	µg/L	0.51	Yes	EPA 608 Rev 7/95	No	

ATTACHMENT G

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
INDIANAPOLIS

OFFICE MEMORANDUM

Date: May 17, 2017

To: George Ritchotte
Industrial Waste Section

Thru: Steve Buckel

WM for SB 5/17/2017

From: Namrata Patel *NP* 05/17/17
Chemistry Services Section

Subject: Analytical Results for BRC Rubber and Plastics, Inc.
Churubusco, Whitley Co., Indiana
Site # IND0005081526, AI # 56434
Sampled: April 28, 2017
Sample Numbers: OL1577 to OL1581
Microbac

The analytical results for the samples identified above have been validated according to the quality criteria contained in the Laboratory Services Contract (RFP 13-83) and the Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) Third Edition, and its updates. Based on the evaluation, it has been determined that the results are acceptable for use.

General Comments:

Inspection was conducted based on a complaint from the Town of Churubusco WWTP operator. The Town contends that BRC Rubber & Plastics is discharging waters to the city sanitary sewer lines that contain PCBs. Sampling was conducted at BRC to attempt to determine the source of the PCBs. Oil, sediment, and wipe samples were collected and analyzed for PCBs.

Sampling Quality Assurance/Quality Control:

Field documentation did allow for interpretation of the data.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). Field duplicate samples were not collected during the sampling event. Therefore, sample results variability cannot be assessed and the results are estimated.

Laboratory Quality Assurance/Quality Control:

The laboratory performed all quality assurance/quality control (QA/QC) measures necessary to validate the analytical results for this sampling event. The data was determined to be valid. Based on the validation of the analytical results, the following comments and/or qualifications are made regarding the data:

PCBs

Oil, sediment, and wipe samples were analyzed for PCBs by SW-846 Method 8082.

Sample OL1580 was diluted due to an elevated level of Aroclor 1248. The dilution was necessary and it resulted in elevated reporting limits for the other Aroclors. The rest of the Aroclors were reported as non-detect and use of the data is not affected.

The matrix spike/ matrix spike duplicate (MS/MSD) was not performed on the samples. Instead, the laboratory analyzed Laboratory Control Sample (LCS) and LCS Duplicate (LCSD) to verify the recoveries. The recoveries for LCS and LCSD were within the control limits.

All other laboratory quality control criteria provided for PCBs analyses were satisfactory.

Results:

The analytical results indicated elevated levels of Aroclor 1248 in OL1578 @ 2,400 ug/kg (ppb), OL1579 @ 7,200 ppb, and OL1580 @ 26,000 ppb. PCBs were non-detect in the wipe sample OL1581 and in oil sample OL1577. The results are summarized in the attached table.

Conclusions

The data are usable for the overall project goal.

Attachment

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

SITE AND SAMPLING INFORMATION

Site Name:

Site Number:

Location:

Date Sampled:

Date Reported:

Sample Numbers:

Lab:

Push Button to Print Page:

Sample #		Type/ID#
Lab	IDEM	

RCRA Metals & Primary Standards

Metals Secondary Standards

General Chemical Analysis

Volatile Organic Analysis

Semi-volatile Organic Analysis

PCBs/Pesticides/Herbicides

TCLP Metals

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

PCBs

Site Name:	BRC Rubber & Plastics, Inc.
Site Number:	AI # 56434, IND005081526
Location:	Churubusco, Whitley Co., IN
Date Sampled:	28-Apr-17
Date Reported:	11-May-17
Sample Numbers:	OL1577- OL1581
Lab:	Microbac

Oil and Sediment

UNITS: ug/kg

Sample #		Type/ID#	Arclor 1248
Lab	IDEM		
		D.L.>	
17E0065-01	OL1577	storage container, oil	
17E0065-02	OL1578	sump area under rubber press # 306, oil	2,400
17E0065-03	OL1579	mop sink, sediment	7,200
17E0065-04	OL1580	adjacent to mop sink, sediment	26,000

Wipe

UNITS: ug/100 cm²

Sample #		Type/ID#	PCBs
Lab			
		R.L.>	1
17E0065-05	OL1581	inside basin of common "mop sink", wipe	



May 8, 2017

Indiana Department of Environmental Management
OLQ, 100 N. Senate Ave., Room N1101
Indianapolis, IN 46204-2251

Work Order No.: 17E0065

Re: OL1577 - OL1581

Dear David Harrison:

Microbac Laboratories, Inc. - Chicagoland Division received 5 sample(s) on 5/2/2017 11:30:00AM for the analyses presented in the following report as Work Order 17E0065.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Donna Ruokonen, Managing Director, at donna.ruokonen@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

A handwritten signature in black ink that reads "Kristen Gehlbach". The signature is written in a cursive, flowing style.

Kristen Gehlbach
Senior Project Manager

Microbac Laboratories, Inc.

5713 W. 85th Street | Indianapolis, IN 46278 | 800.466.5577 p | 317.872.1375 p | 317.872.1379 f | www.microbac.com

**WORK ORDER SAMPLE SUMMARY****Date:** *Monday, May 8, 2017***Client:** Indiana Department of Environmental Management**Project:** OL1577 - OL1581**Lab Order:** 17E0065

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
17E0065-01	OL1577	001-4	04/28/2017 15:20	5/2/2017 8:03:00AM
17E0065-02	OL1578	001-5	04/28/2017 15:25	5/2/2017 8:03:00AM
17E0065-03	OL1579	001-2	04/28/2017 15:05	5/2/2017 8:03:00AM
17E0065-04	OL1580	001-3	04/28/2017 15:10	5/2/2017 8:03:00AM
17E0065-05	OL1581	001-1	04/28/2017 14:52	5/2/2017 8:03:00AM

Microbac Laboratories, Inc.

5713 W. 85th Street | Indianapolis, IN 46278 | 800.466.5577 p | 317.872.1375 p | 317.872.1379 f | www.microbac.com

CASE NARRATIVE**Date:** *Monday, May 8, 2017***Client:** Indiana Department of Environmental Management**Project:** OL1577 - OL1581**Lab Order:** 17E0065

Due to matrix, the following samples were extracted for the 8082 analysis using smaller than normal sample sizes. Reporting limits have been adjusted accordingly.

<u>Laboratory ID</u>	<u>Sample Name</u>
----------------------	--------------------

17E0065-03	OL1579
------------	--------

17E0065-04	OL1580
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Analytical Results

Date: Monday, May 8, 2017

Client: Indiana Department of Environmental Management
Client Project: OL1577 - OL1581
Client Sample ID: OL1577
Sample Description: 001-4
Matrix: Oil

Work Order/ID: 17E0065-01
Sampled: 04/28/2017 15:20
Received: 05/02/2017 8:03

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: SW-846 8082						Analyst: ALS			
Polychlorinated Biphenyls						Prep Date/Time: 05/04/2017 14:29			
Aroclor 1016	dil	A	ND	160	990		µg/Kg	1	05/04/2017 19:27
Aroclor 1221	dil	A	ND	350	990		µg/Kg	1	05/04/2017 19:27
Aroclor 1232	dil	A	ND	130	990		µg/Kg	1	05/04/2017 19:27
Aroclor 1242	dil	A	ND	69	990		µg/Kg	1	05/04/2017 19:27
Aroclor 1248	dil	A	ND	40	990		µg/Kg	1	05/04/2017 19:27
Aroclor 1254	dil	A	ND	130	990		µg/Kg	1	05/04/2017 19:27
Aroclor 1260	dil	A	ND	190	990		µg/Kg	1	05/04/2017 19:27
Aroclor 1262	l	A	ND	180	990		µg/Kg	1	05/04/2017 19:27
Aroclor 1268	l	A	ND	250	990		µg/Kg	1	05/04/2017 19:27
Surr: Decachlorobiphenyl		S	80.0		52.6-143		%REC	1	05/04/2017 19:27
Surr: Tetrachloro-m-xylene		S	90.0		51.3-135		%REC	1	05/04/2017 19:27
Total PCB's	l	A	ND	990	990		µg/Kg	1	05/04/2017 19:27

Microbac Laboratories, Inc.

5713 W. 85th Street | Indianapolis, IN 46278 | 800.466.5577 p | 317.872.1375 p | 317.872.1379 f | www.microbac.com

Analytical Results

Date: Monday, May 8, 2017

Client: Indiana Department of Environmental Management
Client Project: OL1577 - OL1581
Client Sample ID: OL1578
Sample Description: 001-5
Matrix: Oil

Work Order/ID: 17E0065-02
Sampled: 04/28/2017 15:25
Received: 05/02/2017 8:03

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: SW-846 8082						Analyst: ALS			
Polychlorinated Biphenyls						Prep Date/Time: 05/04/2017 14:29			
Aroclor 1016	dil	A	ND	160	990		µg/Kg	1	05/04/2017 19:45
Aroclor 1221	dil	A	ND	350	990		µg/Kg	1	05/04/2017 19:45
Aroclor 1232	dil	A	ND	130	990		µg/Kg	1	05/04/2017 19:45
Aroclor 1242	dil	A	ND	69	990		µg/Kg	1	05/04/2017 19:45
Aroclor 1248	dil	A	2400	40	990		µg/Kg	1	05/04/2017 19:45
Aroclor 1254	dil	A	ND	130	990		µg/Kg	1	05/04/2017 19:45
Aroclor 1260	dil	A	ND	190	990		µg/Kg	1	05/04/2017 19:45
Aroclor 1262	l	A	ND	180	990		µg/Kg	1	05/04/2017 19:45
Aroclor 1268	l	A	ND	250	990		µg/Kg	1	05/04/2017 19:45
Surr: Decachlorobiphenyl		S	70.0		52.6-143		%REC	1	05/04/2017 19:45
Surr: Tetrachloro-m-xylene		S	80.0		51.3-135		%REC	1	05/04/2017 19:45
Total PCB's	l	A	2400	990	990		µg/Kg	1	05/04/2017 19:45

Analytical Results

Date: Monday, May 8, 2017

Client: Indiana Department of Environmental Management
Client Project: OL1577 - OL1581
Client Sample ID: OL1579
Sample Description: 001-2
Matrix: Solid

Work Order/ID: 17E0065-03
Sampled: 04/28/2017 15:05
Received: 05/02/2017 8:03

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	-------	----	--------	-----	----	------	-------	----	----------

Method: SW-846 8082

Analyst: ALS

Polychlorinated Biphenyls

Prep Date/Time: 05/04/2017 07:50

Aroclor 1016	dilo	A	ND	130	440		µg/Kg dry	1	05/04/2017 15:06
Aroclor 1221	dilo	A	ND	98	440		µg/Kg dry	1	05/04/2017 15:06
Aroclor 1232	dilo	A	ND	120	440		µg/Kg dry	1	05/04/2017 15:06
Aroclor 1242	dilo	A	ND	40	440		µg/Kg dry	1	05/04/2017 15:06
Aroclor 1248	dilo	A	7200	38	440		µg/Kg dry	1	05/04/2017 15:06
Aroclor 1254	dilo	A	ND	28	440		µg/Kg dry	1	05/04/2017 15:06
Aroclor 1260	dilo	A	ND	170	440		µg/Kg dry	1	05/04/2017 15:06
Aroclor 1262	l	A	ND	52	440		µg/Kg dry	1	05/04/2017 15:06
Aroclor 1268	l	A	ND	29	440		µg/Kg dry	1	05/04/2017 15:06
Total PCB's	l	A	7200	130	440		µg/Kg dry	1	05/04/2017 15:06
Surr: Tetrachloro-m-xylene		S	0		40-130		%REC	1	05/04/2017 15:06
Surr: Decachlorobiphenyl		S	115		38-128		%REC	1	05/04/2017 15:06

Method: SM 2540 G-1997

Analyst: agrieff

Percent Solids

Prep Date/Time: 05/05/2017 19:02

Percent Solids	di	A	45	0.050	0.10		wt%	1	05/05/2017 19:11
----------------	----	---	----	-------	------	--	-----	---	------------------

Analytical Results

Date: Monday, May 8, 2017

Client: Indiana Department of Environmental Management
Client Project: OL1577 - OL1581
Client Sample ID: OL1580
Sample Description: 001-3
Matrix: Solid

Work Order/ID: 17E0065-04
Sampled: 04/28/2017 15:10
Received: 05/02/2017 8:03

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
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Method: SW-846 8082

Analyst: ALS

Polychlorinated Biphenyls

Prep Date/Time: 05/04/2017 07:50

Aroclor 1016	dilo	A	ND	600	2000		µg/Kg dry	10	05/04/2017 16:16
Aroclor 1221	dilo	A	ND	450	2000		µg/Kg dry	10	05/04/2017 16:16
Aroclor 1232	dilo	A	ND	570	2000		µg/Kg dry	10	05/04/2017 16:16
Aroclor 1242	dilo	A	ND	180	2000		µg/Kg dry	10	05/04/2017 16:16
Aroclor 1248	dilo	A	26000	180	2000		µg/Kg dry	10	05/04/2017 16:16
Aroclor 1254	dilo	A	ND	130	2000		µg/Kg dry	10	05/04/2017 16:16
Aroclor 1260	dilo	A	ND	790	2000		µg/Kg dry	10	05/04/2017 16:16
Aroclor 1262	I	A	ND	240	2000		µg/Kg dry	10	05/04/2017 16:16
Aroclor 1268	I	A	ND	140	2000		µg/Kg dry	10	05/04/2017 16:16
Total PCB's	I	A	26000	600	2000		µg/Kg dry	10	05/04/2017 16:16
Surr: Tetrachloro-m-xylene		S	100		40-130		%REC	10	05/04/2017 16:16
Surr: Decachlorobiphenyl		S	0		38-128		%REC	10	05/04/2017 16:16

Method: SM 2540 G-1997

Analyst: agrieff

Percent Solids

Prep Date/Time: 05/05/2017 19:02

Percent Solids	di	A	97	0.050	0.10		wt%	1	05/05/2017 19:11
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Analytical Results

Date: Monday, May 8, 2017

Client: Indiana Department of Environmental Management
Client Project: OL1577 - OL1581
Client Sample ID: OL1581
Sample Description: 001-1
Matrix: Wipe

Work Order/ID: 17E0065-05
Sampled: 04/28/2017 14:52
Received: 05/02/2017 8:03

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: SW-846 8082							Analyst: ALS		
Polychlorinated Biphenyls							Prep Date/Time: 05/03/2017 13:46		
Aroclor 1016	dil	A	ND	0.00047	1.0		µg/Area	1	05/03/2017 21:11
Aroclor 1221	dil	A	ND	0.00035	1.0		µg/Area	1	05/03/2017 21:11
Aroclor 1232	dil	A	ND	0.00013	1.0		µg/Area	1	05/03/2017 21:11
Aroclor 1242	dil	A	ND	0.000070	1.0		µg/Area	1	05/03/2017 21:11
Aroclor 1248	dil	A	ND	0.000040	1.0		µg/Area	1	05/03/2017 21:11
Aroclor 1254	dil	A	ND	0.00013	1.0		µg/Area	1	05/03/2017 21:11
Aroclor 1260	dil	A	ND	0.00029	1.0		µg/Area	1	05/03/2017 21:11
Aroclor 1262	l	A	ND	0.00018	1.0		µg/Area	1	05/03/2017 21:11
Aroclor 1268	l	A	ND	0.00025	1.0		µg/Area	1	05/03/2017 21:11
Surr: Decachlorobiphenyl		S	65.0		25.7-116		%REC	1	05/03/2017 21:11
Surr: Tetrachloro-m-xylene		S	70.0		39.7-130		%REC	1	05/03/2017 21:11
Total PCB's		A	ND	0.00050	1.0		µg/Area	1	05/03/2017 21:11

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FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
 b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
 b* = Detected in the associated method Blank at a concentration greater than half the RL
 CFU = Colony forming units
 D = Dilution performed on sample
 DF = Dilution Factor
 g = Gram
 E = Value above quantitation range
 H = Analyte was prepared and/or analyzed outside of the analytical method holding time
 I = Matrix Interference
 J = Analyte concentration detected between RL and MDL (Metals / Organics)
 LOD = Limit of Detection
 LOQ = Limit of Quantitation
 m3 = Meters cubed
 MDL = Method Detection Limit
 mg/Kg = Milligrams per Kilogram (ppm)
 mg/L = Milligrams per Liter (ppm)
 NA = Not Analyzed
 ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
 NR = Not Recovered
 R = RPD outside accepted recovery limits
 RL = Reporting Limit
 S = Spike recovery outside recovery limits
 Surr = Surrogate
 U = Undetected
 > = Greater than
 < = Less than
 % = Percent
 * = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
 I = Internal Standard
 M = Summation Analyte
 S = Surrogate
 T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank	ICSA = Interference Check Standard "A"
DUP = Method Duplicate	ICSAB = Interference Check Standard "AB"
BS = Method Blank Spike	BSD = Method Blank Spike Duplicate
MS = Matrix Spike	MSD = Matrix Spike Duplicate
ICB = Initial Calibration Blank	ICV = Initial Calibration Verification
CCB = Continuing Calibration Blank	CCV = Continuing Calibration Verification
CRL = Client Required Reporting Limit	OPR = Ongoing Precision and Recovery Standard
PDS = Post Digestion Spike	SD = Serial Dilution
QCS = Quality Control Standard	

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

- ° Illinois EPA drinking water, wastewater and solid waste analysis (#200064)
- i Kansas Dept Health & Env. NELAP (#E-10397)
- l North Carolina DENR NPDES effluent, surface water (#597)
- o Virginia Department of General Services Division of Consolidated Laboratory Services (#7990)



COOLER INSPECTION

Client Name: Indiana Department of Environmental Management

Date: Monday, May 8, 2017

Date/Time Received: 05/02/2017 11:30

Work Order Number: 17E0065

Received by: Nicole Rainwater

Checklist completed by: 5/2/2017 8:03:00AM | Nicole Rainwater

Reviewed by: 5/3/2017 | KG

Carrier Name: Microbac

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 4.6° C

After-Hour Arrival?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Shipping container/cooler in good condition?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample containers?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
COC present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included sufficient client identification?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included sufficient sample collector information?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included a sample description?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC agrees with sample labels?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC identified the appropriate matrix?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included date of collection?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included time of collection?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC identified the appropriate number of containers?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Sample containers intact?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
All samples received within holding time?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
If the samples are preserved, are the preservatives identified?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	

If No, adjusted by? _____

COC included the requested analyses?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC signed when relinquished and received?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Samples received on ice?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Samples properly preserved?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Voa vials for aqueous samples have zero headspace?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>

Cooler Comments: _____

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
17E0065-01	OL1577	ICOC
17E0065-02	OL1578	ICOC
17E0065-03	OL1579	ICOC
17E0065-04	OL1580	ICOC
17E0065-05	OL1581	ICOC

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IDEM - Indianapolis, IN
OL1577-OL1581
05/02/2017





Please Send Report to:

IDEM
OLQ Chemistry Section
Attn: QA Officer
MC 66-20 IGCN N1101
100 N Senate Avenue
Indianapolis, IN 46204-2251
www.idem.IN.gov

Print Name: George Ritzsch

Signature: Mary Ritchie

(3) REQUIRED TURNAROUND TIME (with full documentation)			
30 days	14 days	7 days	2 days

(5) **TRANSFER OF CUSTODY** - I certify that I received the above samples.

Relinquished by: _____ Sign _____

Received by _____ Sign _____

Received by: _____

Relinquished by: _____

Received by: _____ Sign: _____

Date	Time
------	------


5/1/17	1640 AM/PM
--------	---------------

5-2-17	7:00 AM/PM
--------	---------------

5-2-17 17:30

(6) LABORATORY RECEIPT OF SAMPLES

I certify that I received the above samples. After recording these samples in the official logbook, they will remain in the custody of competent lab personnel or be secured in a locked area at all times.

Received by: 

Leberstan: 500

Laboratory. YV

Date	Time
------	------

5-217	11 30 AM/PM
-------	----------------

10/06 Revision

FOR LABORATORY USE ONLY:

Cooler Temp:

460

Sample Condition:

07

(7) DISTRIBUTION: PINK COPY - IDEM Sampler YELLOW COPY - Lab (Keep) WHITE COPY - Lab (To be Returned to IDEM with Data Package)

Page 12 of 12



LEVEL IV

QA/QC DATA PACKAGE

CLIENT:	Indiana Department of Environmental Management
PROJECT:	OL1577 - OL1581
LAB WORKORDER:	17E0065
DATE PACKAGE ISSUED:	05/09/2017

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Sample Summary

Specific Method: SW-846 8082

Sample Summary

Laboratory Report Number: 17E0065

Client Project ID: OL - OL

Microbac Laboratories, Inc. - Chicagoland

GC Semivolatiles

Client Sample Id:	Lab Sample Id:
OL1577	17E0065-01
OL1578	17E0065-02
OL1579	17E0065-03
OL1580	17E0065-04
OL1581	17E0065-05

Wet Chemistry

Client Sample Id:	Lab Sample Id:
OL1579	17E0065-03
OL1580	17E0065-04

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee,

Signature: Matthew SheehyName: Matthew J. SheehyDate: 5/9/2017Title: QA Specialist

Holding Time Summary

Specific Method: SM 2540 G-1997

Hold Time

Laboratory Report Number: 17E0065

Matrix: Solid

Client Project ID: OL - OL

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
OL1579	04/28/17 15:05	05/02/17 08:03	05/05/17 19:02	7.00	7.00	05/05/17 19:11	0.01		
OL1580	04/28/17 15:10	05/02/17 08:03	05/05/17 19:02	7.00	7.00	05/05/17 19:11	0.01		

Specific Method: SW-846 8082

Hold Time

Laboratory Report Number: 17E0065

Matrix: Oil

Client Project ID: OL - OL

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
OL1577	04/28/17 15:20	05/02/17 08:03	05/04/17 14:29	6.00	14.00	05/04/17 19:27	0.21	40.00	
OL1578	04/28/17 15:25	05/02/17 08:03	05/04/17 14:29	6.00	14.00	05/04/17 19:45	0.22	40.00	
OL1579	04/28/17 15:05	05/02/17 08:03	05/04/17 07:50	6.00	14.00	05/04/17 15:06	0.30	40.00	
OL1580	04/28/17 15:10	05/02/17 08:03	05/04/17 07:50	6.00	14.00	05/04/17 16:16	0.35	40.00	
OL1581	04/28/17 14:52	05/02/17 08:03	05/03/17 13:46	5.00	14.00	05/03/17 21:11	0.31	40.00	

GC

Semivolatiles

Two oil samples, two solid samples, and one wipe sample were received on 5/2/2017 for analysis and reporting in accordance with our Level IV protocol. The samples were received in acceptable physical condition. The shipping container and sample container did not contain custody seals. The chain of custody did not identify the appropriate number of containers. The samples were analyzed for Polychlorinated Biphenyls using EPA Method 608. The solid samples were also analyzed for Percent Solids by SM 2540 G-1997. The solids data were used to calculate the dry-weight concentrations of the analytes.

The samples were collected on 4/28/2017. The samples were extracted on 5/3/2017 and 5/4/2017 and analyzed on 5/3/2017 and 5/4/2017. The samples were extracted and analyzed within the prescribed maximum allowable holding time without exception. The samples were extracted with a smaller than normal sample size due to matrix. The reporting limits were adjusted accordingly.

The required instrument calibrations and quality control tests were performed and the acceptance criteria met without exception. For PCB analysis, multi-point calibration curves were established for Aroclor 1016 and Aroclor 1260. A single-point calibration was established for Aroclor 1248. Aroclor identification was performed by pattern matching a minimum of three peaks per Aroclor. The CCV standards met acceptance criteria without exception.

Surrogate compounds are spiked into each sample to evaluate the extraction and analysis efficiency. One of the two surrogate compounds is required to meet the acceptance criteria. The surrogates in the environmental sample met the accuracy criteria without exception.

See the report narrative and QC summary report for specific batch quality control information. Matrix evaluation was not performed on a sample in this batch. Precision criteria was evaluated through the analysis of a Laboratory Control Sample Duplicate. The acceptance criteria were met without exception.

Sample results labeled with a "J" qualifier are results which are above the MDL and below the MRL.

This Case Narrative was prepared by Matthew Sheehy, QA Specialist.

GC Semivolatiles SW-846 8082

FORM 1:
GC Semivolatiles
SW-846 8082
RESULTS SUMMARY

Laboratory Report Number: 17E0065

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS

FORM 1

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E0065-01				Instrument: ECD-4-F			
Client ID: OL1577		Prep Method: SW846 3580A		Prep Date: 5/4/17 2:29 pm			
Matrix: Oil		Analytical Method: SW-846 8082		Calibration: 0000559			
Batch / Sequence: B102245 / S034580		Analyst: ALS		Analyzed: 5/4/17 7:27 pm			
Collection Date: 4/28/17 3:20 pm		Dilution: 1		File ID: M17E0437.D			
		Units: µg/Kg					
Analyte		CAS Number	Result	MDL	RL	Flag	Qualifier
Aroclor 1016		12674-11-2	ND	160	990		
Aroclor 1221		11104-28-2	ND	350	990		
Aroclor 1232		11141-16-5	ND	130	990		
Aroclor 1242		53469-21-9	ND	69	990		
Aroclor 1248		12672-29-6	ND	40	990		
Aroclor 1254		11097-69-1	ND	130	990		
Aroclor 1260		11096-82-5	ND	190	990		
Aroclor 1262		37324-23-5	ND	180	990		
Aroclor 1268		11100-14-4	ND	250	990		
Total PCB's			ND	990	990		

Surrogate	Recovery	Limits	Units	Q	Qualifier
Decachlorobiphenyl	80.0	52.6-143	% Rec		
Tetrachloro-m-xylene	90.0	51.3-135	% Rec		

Laboratory Report Number: 17E0065

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS

FORM 1

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E0065-02		Instrument: ECD-4-F				
Client ID: OL1578	Prep Method: SW846 3580A	Prep Date: 5/4/17 2:29 pm				
Matrix: Oil	Analytical Method: SW-846 8082	Calibration: 0000559				
Batch / Sequence: B102245 / S034580	Analyst: ALS	Analyzed: 5/4/17 7:45 pm				
Collection Date: 4/28/17 3:25 pm	Dilution: 1	File ID: M17E0438.D				
Units: µg/Kg						
Analyte	CAS Number	Result	MDL	RL	Flag	Qualifier
Aroclor 1016	12674-11-2	ND	160	990		
Aroclor 1221	11104-28-2	ND	350	990		
Aroclor 1232	11141-16-5	ND	130	990		
Aroclor 1242	53469-21-9	ND	69	990		
Aroclor 1248	12672-29-6	2400	40	990		
Aroclor 1254	11097-69-1	ND	130	990		
Aroclor 1260	11096-82-5	ND	190	990		
Aroclor 1262	37324-23-5	ND	180	990		
Aroclor 1268	11100-14-4	ND	250	990		
Total PCB's		2400	990	990		

Surrogate	Recovery	Limits	Units	Q	Qualifier
Decachlorobiphenyl	70.0	52.6-143	% Rec		
Tetrachloro-m-xylene	80.0	51.3-135	% Rec		



Laboratory Report Number: 17E0065

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS

FORM 1

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E0065-03			Instrument: ECD-4-F				
Client ID: OL1579		Prep Method: SW846 3550B		Prep Date: 5/4/17 7:50 am			
Matrix: Solid		Analytical Method: SW-846 8082		Calibration: 0000559			
Batch / Sequence: B102186 / S034580		Analyst: ALS		Analyzed: 5/4/17 3:06 pm			
Collection Date: 4/28/17 3:05 pm		Dilution: 1		File ID: M17E0422.D			
		Units: µg/Kg dry		% Solids: 44.60			
Analyte		CAS Number	Result	MDL	RL	Flag	Qualifier
Aroclor 1016		12674-11-2	ND	130	440		
Aroclor 1221		11104-28-2	ND	98	440		
Aroclor 1232		11141-16-5	ND	120	440		
Aroclor 1242		53469-21-9	ND	40	440		
Aroclor 1248		12672-29-6	7200	38	440		
Aroclor 1254		11097-69-1	ND	28	440		
Aroclor 1260		11096-82-5	ND	170	440		
Aroclor 1262		37324-23-5	ND	52	440		
Aroclor 1268		11100-14-4	ND	29	440		
Total PCB's			7200	130	440		

Surrogate	Recovery	Limits	Units	Q	Qualifier
Tetrachloro-m-xylene		40-130	% Rec		
Decachlorobiphenyl	115	38-128	% Rec		

Microbac Laboratories, Inc.

250 West 84th Drive | Merrillville, IN 46410 | 219.769.8378 | www.microbac.com



Laboratory Report Number: 17E0065

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS

FORM 1

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E0065-04			Instrument: ECD-4-F				
Client ID: OL1580		Prep Method: SW846 3550B		Prep Date: 5/4/17 7:50 am			
Matrix: Solid		Analytical Method: SW-846 8082		Calibration: 0000559			
Batch / Sequence: B102186 / S034580		Analyst: ALS		Analyzed: 5/4/17 4:16 pm			
Collection Date: 4/28/17 3:10 pm		Dilution: 10		File ID: M17E0426.D			
		Units: µg/Kg dry		% Solids: 96.66			
Analyte		CAS Number	Result	MDL	RL	Flag	Qualifier
Aroclor 1016		12674-11-2	ND	600	2000		
Aroclor 1221		11104-28-2	ND	450	2000		
Aroclor 1232		11141-16-5	ND	570	2000		
Aroclor 1242		53469-21-9	ND	180	2000		
Aroclor 1248		12672-29-6	26000	180	2000		
Aroclor 1254		11097-69-1	ND	130	2000		
Aroclor 1260		11096-82-5	ND	790	2000		
Aroclor 1262		37324-23-5	ND	240	2000		
Aroclor 1268		11100-14-4	ND	140	2000		
Total PCB's			26000	600	2000		

Surrogate	Recovery	Limits	Units	Q	Qualifier
Tetrachloro-m-xylene	100	40-130	% Rec		
Decachlorobiphenyl		38-128	% Rec		

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Laboratory Report Number: 17E0065

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS

FORM 1

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E0065-05				Instrument: ECD-4-F			
Client ID: OL1581		Prep Method: SW846 3550B		Prep Date: 5/3/17 1:46 pm			
Matrix: Wipe		Analytical Method: SW-846 8082		Calibration: NA			
Batch / Sequence: B102163 / S034551		Analyst: ALS		Analyzed: 5/3/17 9:11 pm			
Collection Date: 4/28/17 2:52 pm		Dilution: 1		File ID: M17E0344.D			
		Units: µg/Area					
Analyte		CAS Number	Result	MDL	RL	Flag	Qualifier
Aroclor 1016		12674-11-2	ND	0.00047	1.0		
Aroclor 1221		11104-28-2	ND	0.00035	1.0		
Aroclor 1232		11141-16-5	ND	0.00013	1.0		
Aroclor 1242		53469-21-9	ND	0.000070	1.0		
Aroclor 1248		12672-29-6	ND	0.000040	1.0		
Aroclor 1254		11097-69-1	ND	0.00013	1.0		
Aroclor 1260		11096-82-5	ND	0.00029	1.0		
Aroclor 1262		37324-23-5	ND	0.00018	1.0		
Aroclor 1268		11100-14-4	ND	0.00025	1.0		
Total PCB's			ND	0.00050	1.0		

Surrogate	Recovery	Limits	Units	Q	Qualifier
Decachlorobiphenyl	65.0	25.7-116	% Rec		
Tetrachloro-m-xylene	70.0	39.7-130	% Rec		

Flags and Qualifiers

B = Detected in the associated method Blank at a concentration above the routine RL

b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL

b* = Detected in the associated method Blank at a concentration greater than half the RL

D = Dilution performed on sample

DF = Dilution Factor

g = Gram

E = Value above quantitation range

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

I = Matrix Interference

J = Analyte concentration detected between RL and MDL (Metals / Organics)

LOD = Limit of Detection

LOQ = Limit of Quantitation

m3 = Meters cubed

MDL = Method Detection Limit

mg/Kg = Milligrams per Kilogram (ppm)

mg/L = Milligrams per Liter (ppm)

NA = Not Analyzed

ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)

NR = Not Recovered

R = RPD outside accepted recovery limits

RL = Reporting Limit

S = Spike recovery outside recovery limits

Surr = Surrogate

U = Undetected

> = Greater than

< = Less than

% = Percent

* = Result exceeds project specific limits

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FORM 2:
GC Semivolatiles
SW-846 8082
SURROGATE SUMMARY

Laboratory Report Number: 17E0065

SURROGATE STANDARD RECOVERY
FORM 2C

Client Project ID: OL - OL

Instrument: ECD-4-F

Method: SW-846 8082

Sequence: S032942

Calibration: 0000559

Matrix: Aqueous

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Initial Cal Check (S032942-ICV1)		Lab File ID: M17A3110.D	Analyzed: 01/31/17 19:00	
Tetrachloro-m-xylene	0.02000	90.0	0 - 200	
Decachlorobiphenyl	0.02000	95.0	0 - 200	

Laboratory Report Number: 17E0065
**SURROGATE STANDARD RECOVERY
FORM 2C**
Client Project ID: OL - OL
Instrument: ECD-4-F

Method: SW-846 8082

Sequence: S034580

Calibration: 0000559

Matrix: Aqueous

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Calibration Check (S034580-CCV9) Lab File ID: M17E0418.D Analyzed: 05/04/17 13:56				
Tetrachloro-m-xylene	0.04000	100	0 - 200	
Decachlorobiphenyl	0.04000	97.5	0 - 200	
Blank (B102186-BLK1) Lab File ID: M17E0419.D Analyzed: 05/04/17 14:14				
Tetrachloro-m-xylene	6.667	80.0	40 - 130	
Decachlorobiphenyl	6.667	85.0	38 - 128	
LCS (B102186-BS1) Lab File ID: M17E0420.D Analyzed: 05/04/17 14:31				
Tetrachloro-m-xylene	6.667	60.0	40 - 130	
Decachlorobiphenyl	6.667	65.0	38 - 128	
LCS Dup (B102186-BSD1) Lab File ID: M17E0421.D Analyzed: 05/04/17 14:49				
Tetrachloro-m-xylene	6.667	65.0	40 - 130	
Decachlorobiphenyl	6.667	70.0	38 - 128	
Calibration Check (S034580-CCVB) Lab File ID: M17E0431.D Analyzed: 05/04/17 17:43				
Tetrachloro-m-xylene	0.02000	105	0 - 200	
Decachlorobiphenyl	0.02000	85.0	0 - 200	
Blank (B102245-BLK1) Lab File ID: M17E0432.D Analyzed: 05/04/17 18:00				
Tetrachloro-m-xylene	200.0	105	51.3 - 135	
Decachlorobiphenyl	200.0	95.0	52.6 - 143	
LCS (B102245-BS1) Lab File ID: M17E0433.D Analyzed: 05/04/17 18:18				
Tetrachloro-m-xylene	200.0	105	51.3 - 135	
Decachlorobiphenyl	200.0	100	52.6 - 143	
LCS Dup (B102245-BSD1) Lab File ID: M17E0434.D Analyzed: 05/04/17 18:35				
Tetrachloro-m-xylene	200.0	105	51.3 - 135	
Decachlorobiphenyl	200.0	100	52.6 - 143	
Calibration Check (S034580-CCVC) Lab File ID: M17E0446.D Analyzed: 05/04/17 22:04				
Tetrachloro-m-xylene	0.04000	102	0 - 200	
Decachlorobiphenyl	0.04000	85.0	0 - 200	
Calibration Check (S034580-CCVD) Lab File ID: M17E0447.D Analyzed: 05/04/17 22:22				
Tetrachloro-m-xylene	0.02000	105	0 - 200	
Decachlorobiphenyl	0.02000	80.0	0 - 200	

Laboratory Report Number: 17E0065
**SURROGATE STANDARD RECOVERY
FORM 2C**
Client Project ID: OL - OL
Instrument: ECD-4-F

Method: SW-846 8082

Sequence: S034580

Calibration: 0000559

Matrix: Oil

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Calibration Check (S034580-CCV9) Lab File ID: M17E0418.D Analyzed: 05/04/17 13:56				
Tetrachloro-m-xylene	0.04000	100	0 - 200	
Decachlorobiphenyl	0.04000	97.5	0 - 200	
Blank (B102186-BLK1) Lab File ID: M17E0419.D Analyzed: 05/04/17 14:14				
Tetrachloro-m-xylene	6.667	80.0	40 - 130	
Decachlorobiphenyl	6.667	85.0	38 - 128	
LCS (B102186-BS1) Lab File ID: M17E0420.D Analyzed: 05/04/17 14:31				
Tetrachloro-m-xylene	6.667	60.0	40 - 130	
Decachlorobiphenyl	6.667	65.0	38 - 128	
LCS Dup (B102186-BSD1) Lab File ID: M17E0421.D Analyzed: 05/04/17 14:49				
Tetrachloro-m-xylene	6.667	65.0	40 - 130	
Decachlorobiphenyl	6.667	70.0	38 - 128	
Calibration Check (S034580-CCVB) Lab File ID: M17E0431.D Analyzed: 05/04/17 17:43				
Tetrachloro-m-xylene	0.02000	105	0 - 200	
Decachlorobiphenyl	0.02000	85.0	0 - 200	
Blank (B102245-BLK1) Lab File ID: M17E0432.D Analyzed: 05/04/17 18:00				
Tetrachloro-m-xylene	200.0	105	51.3 - 135	
Decachlorobiphenyl	200.0	95.0	52.6 - 143	
LCS (B102245-BS1) Lab File ID: M17E0433.D Analyzed: 05/04/17 18:18				
Tetrachloro-m-xylene	200.0	105	51.3 - 135	
Decachlorobiphenyl	200.0	100	52.6 - 143	
LCS Dup (B102245-BSD1) Lab File ID: M17E0434.D Analyzed: 05/04/17 18:35				
Tetrachloro-m-xylene	200.0	105	51.3 - 135	
Decachlorobiphenyl	200.0	100	52.6 - 143	
OL1577 (17E0065-01) Lab File ID: M17E0437.D Analyzed: 05/04/17 19:27				
Tetrachloro-m-xylene	198.0	90.0	51.3 - 135	
Decachlorobiphenyl	198.0	80.0	52.6 - 143	
OL1578 (17E0065-02) Lab File ID: M17E0438.D Analyzed: 05/04/17 19:45				
Tetrachloro-m-xylene	198.0	80.0	51.3 - 135	
Decachlorobiphenyl	198.0	70.0	52.6 - 143	
Calibration Check (S034580-CCVC) Lab File ID: M17E0446.D Analyzed: 05/04/17 22:04				
Tetrachloro-m-xylene	0.04000	102	0 - 200	
Decachlorobiphenyl	0.04000	85.0	0 - 200	

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Laboratory Report Number: 17E0065
Client Project ID: OL - OL

SURROGATE STANDARD RECOVERY
FORM 2C

Instrument: ECD-4-F	Method: SW-846 8082
Sequence: S034580	Calibration: 0000559
Matrix: Oil	

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Calibration Check (S034580-CCVD)		Lab File ID: M17E0447.D	Analyzed: 05/04/17 22:22	
Tetrachloro-m-xylene	0.02000	105	0 - 200	
Decachlorobiphenyl	0.02000	80.0	0 - 200	

Laboratory Report Number: 17E0065
**SURROGATE STANDARD RECOVERY
FORM 2C**
Client Project ID: OL - OL
Instrument: ECD-4-F
Method: SW-846 8082
Sequence: S034580
Calibration: 0000559
Matrix: Solid

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Calibration Check (S034580-CCV9) Lab File ID: M17E0418.D Analyzed: 05/04/17 13:56				
Tetrachloro-m-xylene	0.04000	100	0 - 200	
Decachlorobiphenyl	0.04000	97.5	0 - 200	
Blank (B102186-BLK1) Lab File ID: M17E0419.D Analyzed: 05/04/17 14:14				
Tetrachloro-m-xylene	6.667	80.0	40 - 130	
Decachlorobiphenyl	6.667	85.0	38 - 128	
LCS (B102186-BS1) Lab File ID: M17E0420.D Analyzed: 05/04/17 14:31				
Tetrachloro-m-xylene	6.667	60.0	40 - 130	
Decachlorobiphenyl	6.667	65.0	38 - 128	
LCS Dup (B102186-BSD1) Lab File ID: M17E0421.D Analyzed: 05/04/17 14:49				
Tetrachloro-m-xylene	6.667	65.0	40 - 130	
Decachlorobiphenyl	6.667	70.0	38 - 128	
OL1579 (17E0065-03) Lab File ID: M17E0422.D Analyzed: 05/04/17 15:06				
Tetrachloro-m-xylene	88.10	ND	40 - 130	*
Decachlorobiphenyl	88.10	115	38 - 128	
OL1580 (17E0065-04) Lab File ID: M17E0426.D Analyzed: 05/04/17 16:16				
Tetrachloro-m-xylene	40.97	100	40 - 130	
Decachlorobiphenyl	40.97	ND	38 - 128	*
Calibration Check (S034580-CCVB) Lab File ID: M17E0431.D Analyzed: 05/04/17 17:43				
Tetrachloro-m-xylene	0.02000	105	0 - 200	
Decachlorobiphenyl	0.02000	85.0	0 - 200	
Blank (B102245-BLK1) Lab File ID: M17E0432.D Analyzed: 05/04/17 18:00				
Tetrachloro-m-xylene	200.0	105	51.3 - 135	
Decachlorobiphenyl	200.0	95.0	52.6 - 143	
LCS (B102245-BS1) Lab File ID: M17E0433.D Analyzed: 05/04/17 18:18				
Tetrachloro-m-xylene	200.0	105	51.3 - 135	
Decachlorobiphenyl	200.0	100	52.6 - 143	
LCS Dup (B102245-BSD1) Lab File ID: M17E0434.D Analyzed: 05/04/17 18:35				
Tetrachloro-m-xylene	200.0	105	51.3 - 135	
Decachlorobiphenyl	200.0	100	52.6 - 143	
Calibration Check (S034580-CCVC) Lab File ID: M17E0446.D Analyzed: 05/04/17 22:04				
Tetrachloro-m-xylene	0.04000	102	0 - 200	
Decachlorobiphenyl	0.04000	85.0	0 - 200	

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Laboratory Report Number: 17E0065

SURROGATE STANDARD RECOVERY
FORM 2C

Client Project ID: OL - OL

Instrument: ECD-4-F

Method: SW-846 8082

Sequence: S034580

Calibration: 0000559

Matrix: Solid

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Calibration Check (S034580-CCVD)		Lab File ID: M17E0447.D	Analyzed: 05/04/17 22:22	
Tetrachloro-m-xylene	0.02000	105	0 - 200	
Decachlorobiphenyl	0.02000	80.0	0 - 200	

Laboratory Report Number: 17E0065
**SURROGATE STANDARD RECOVERY
FORM 2C**
Client Project ID: OL - OL
Instrument: ECD-4-F

Method: SW-846 8082

Sequence: S034551

Calibration: 0000559

Matrix: Wipe

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Calibration Check (S034551-CCV2) Lab File ID: M17E0334.D Analyzed: 05/03/17 18:17				
Decachlorobiphenyl	0.04000	102	0 - 200	
Tetrachloro-m-xylene	0.04000	100	0 - 200	
Blank (B102163-BLK1) Lab File ID: M17E0340.D Analyzed: 05/03/17 20:02				
Decachlorobiphenyl	0.2000	100	25.7 - 116	
Tetrachloro-m-xylene	0.2000	85.0	39.7 - 130	
LCS (B102163-BS1) Lab File ID: M17E0341.D Analyzed: 05/03/17 20:19				
Decachlorobiphenyl	0.2000	95.0	25.7 - 116	
Tetrachloro-m-xylene	0.2000	85.0	39.7 - 130	
LCS Dup (B102163-BSD1) Lab File ID: M17E0342.D Analyzed: 05/03/17 20:36				
Decachlorobiphenyl	0.2000	95.0	25.7 - 116	
Tetrachloro-m-xylene	0.2000	85.0	39.7 - 130	
OL1581 (17E0065-05) Lab File ID: M17E0344.D Analyzed: 05/03/17 21:11				
Decachlorobiphenyl	0.2000	65.0	25.7 - 116	
Tetrachloro-m-xylene	0.2000	70.0	39.7 - 130	
Calibration Check (S034551-CCV3) Lab File ID: M17E0346.D Analyzed: 05/03/17 21:46				
Decachlorobiphenyl	0.02000	100	0 - 200	
Tetrachloro-m-xylene	0.02000	100	0 - 200	

FORM 3:
GC Semivolatiles
SW-846 8082
MS/MSD



Laboratory Report Number: 17E0065

Client Project ID: OL - OL

BLANK SPIKE / DUPLICATE (BS/BSD)

FORM 3B

Instrument: ECD-4-F	Analyzed: 05/03/17 20:19	Initial/Final: 1g/10g
Batch: B102163	Prepared: 05/03/17 13:46	Dup Initial/Final: 1g/10g
Blank Spike ID: B102163-BS1	Analyst: ALS	Method: SW-846 8082
Blank Spike Dup ID: B102163-BSD1	File ID: M17E0341.D	Units: µg/Area
Matrix: Wipe	File ID: M17E0342.D	Calibration: 0000559

Analyte	BS Spiked	BS Found	BS %Rec	BSD Spiked	BSD Found	BSD %Rec	%RPD	%Rec Limts	RPD Limit	Q
Aroclor 1016	5.000	4.94	98.8	5.000	4.95	99.1	0.283	75 - 145	30	
Aroclor 1260	5.000	4.74	94.7	5.000	4.74	94.8	0.127	78.9 - 130	30	

Surrogate	BS Spiked	BS Found	BS %Rec	BSD Spiked	BSD Found	BSD %Rec	%RPD	%Rec Limts	RPD Limit	Q
Decachlorobiphenyl	0.2000	0.19	95.0	0.2000	0.19	95.0		25.7 - 116		
Tetrachloro-m-xylene	0.2000	0.17	85.0	0.2000	0.17	85.0		39.7 - 130		

* - Does not meet %Rec acceptance criteria.

- Does not meet RPD acceptance criteria.

NS - Analyte Not Spiked

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Laboratory Report Number: 17E0065
Client Project ID: OL - OL
BLANK SPIKE / DUPLICATE (BS/BSD)
FORM 3B

Instrument: ECD-4-F	Analyzed: 05/04/17 14:31	Initial/Final: 30g/10ml
Batch: B102186	Prepared: 05/04/17 07:50	Dup Initial/Final: 30g/10ml
Blank Spike ID: B102186-BS1	Analyst: ALS	Method: SW-846 8082
Blank Spike Dup ID: B102186-BSD1	File ID: M17E0420.D	Units: µg/Kg wet
Matrix: Solid	File ID: M17E0421.D	Calibration: 0000559

Analyte	BS Spiked	BS Found	BS %Rec	BSD Spiked	BSD Found	BSD %Rec	%RPD	%Rec Limts	RPD Limit	Q
Aroclor 1016	166.7	98.2	58.9	166.7	110	66.3	11.8	30.2 - 145	30	
Aroclor 1260	166.7	90.0	54.0	166.7	97.0	58.2	7.49	40.1 - 138	30	

Surrogate	BS Spiked	BS Found	BS %Rec	BSD Spiked	BSD Found	BSD %Rec	%RPD	%Rec Limts	RPD Limit	Q
Decachlorobiphenyl	6.667	4.3	65.0	6.667	4.7	70.0		38 - 128		
Tetrachloro-m-xylene	6.667	4.0	60.0	6.667	4.3	65.0		40 - 130		

* - Does not meet %Rec acceptance criteria.

- Does not meet RPD acceptance criteria.

NS - Analyte Not Spiked

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Laboratory Report Number: 17E0065

Client Project ID: OL - OL

BLANK SPIKE / DUPLICATE (BS/BSD)

FORM 3B

Instrument: ECD-4-F	Analyzed: 05/04/17 18:18	Initial/Final: 1g/10ml
Batch: B102245	Prepared: 05/04/17 14:29	Dup Initial/Final: 1g/10ml
Blank Spike ID: B102245-BS1	Analyst: ALS	Method: SW-846 8082
Blank Spike Dup ID: B102245-BSD1	File ID: M17E0433.D	Units: µg/Kg
Matrix: Oil	File ID: M17E0434.D	Calibration: 0000559

Analyte	BS Spiked	BS Found	BS %Rec	BSD Spiked	BSD Found	BSD %Rec	%RPD	%Rec Limts	RPD Limit	Q
Aroclor 1016	5000	5220	104	5000	5200	104	0.423	72.7 - 123	30	
Aroclor 1260	5000	5030	101	5000	5030	101	0.0796	80.3 - 123	30	

Surrogate	BS Spiked	BS Found	BS %Rec	BSD Spiked	BSD Found	BSD %Rec	%RPD	%Rec Limts	RPD Limit	Q
Decachlorobiphenyl	200.0	200	100	200.0	200	100		52.6 - 143		
Tetrachloro-m-xylene	200.0	210	105	200.0	210	105		51.3 - 135		

* - Does not meet %Rec acceptance criteria.

- Does not meet RPD acceptance criteria.

NS - Analyte Not Spiked

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FORM 4:
GC Semivolatiles
SW-846 8082
METHOD BLANK SUMMARY



Laboratory Report Number: 17E0065

Client Project ID: OL - OL

METHOD BLANK SUMMARY

FORM 4A

Blank ID: B102163-BLK1
Blank File ID: M17E0340.D
Prepared: 05/03/2017 13:46
Analyzed: 05/03/2017 20:02

Batch: B102163
Instrument: ECD-4-F
Method: SW-846 8082
Analyst: ALS

This Method Blank Applies To The Following Samples:

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
Blank	B102163-BLK1	M17E0340.D	05/03/2017 20:02
LCS	B102163-BS1	M17E0341.D	05/03/2017 20:19
LCS Dup	B102163-BSD1	M17E0342.D	05/03/2017 20:36
OL1581	17E0065-05	M17E0344.D	05/03/2017 21:11



Laboratory Report Number: 17E0065

Client Project ID: OL - OL

METHOD BLANK SUMMARY

FORM 4A

Blank ID: B102186-BLK1
Blank File ID: M17E0419.D
Prepared: 05/04/2017 7:50
Analyzed: 05/04/2017 14:14

Batch: B102186
Instrument: ECD-4-F
Method: SW-846 8082
Analyst: ALS

This Method Blank Applies To The Following Samples:

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
Blank	B102186-BLK1	M17E0419.D	05/04/2017 14:14
LCS	B102186-BS1	M17E0420.D	05/04/2017 14:31
LCS Dup	B102186-BSD1	M17E0421.D	05/04/2017 14:49
OL1579	17E0065-03	M17E0422.D	05/04/2017 15:06
OL1580	17E0065-04	M17E0426.D	05/04/2017 16:16



Laboratory Report Number: 17E0065

Client Project ID: OL - OL

METHOD BLANK SUMMARY

FORM 4A

Blank ID: B102245-BLK1
Blank File ID: M17E0432.D
Prepared: 05/04/2017 14:29
Analyzed: 05/04/2017 18:00

Batch: B102245
Instrument: ECD-4-F
Method: SW-846 8082
Analyst: ALS

This Method Blank Applies To The Following Samples:

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
Blank	B102245-BLK1	M17E0432.D	05/04/2017 18:00
LCS	B102245-BS1	M17E0433.D	05/04/2017 18:18
LCS Dup	B102245-BSD1	M17E0434.D	05/04/2017 18:35
OL1577	17E0065-01	M17E0437.D	05/04/2017 19:27
OL1578	17E0065-02	M17E0438.D	05/04/2017 19:45

Laboratory Report Number: 17E0065

Client Project ID: OL - OL

**METHOD BLANK
FORM 4B**

Sample ID: B102163-BLK1	Prep Date: 05/03/17 13:46	Matrix: Wipe				
Instrument: ECD-4-F	Analyzed: 05/03/17 20:02	Method: SW-846 8082				
File ID: M17E0340.D	Sequence: S034551	Prep Method: 3550_PCB_WIPE_PR				
Batch: B102163	Units: µg/Area	Analyst: ALS				
Calibration: 0000559						
Analyte	Result	MDL	RL	Dilution	Flag	Q
Aroclor 1016	1.0	0.00047	1.0	1	U	
Aroclor 1221	1.0	0.00035	1.0	1	U	
Aroclor 1232	1.0	0.00013	1.0	1	U	
Aroclor 1242	1.0	0.000070	1.0	1	U	
Aroclor 1248	1.0	0.000040	1.0	1	U	
Aroclor 1254	1.0	0.00013	1.0	1	U	
Aroclor 1260	1.0	0.00029	1.0	1	U	
Aroclor 1262	1.0	0.00018	1.0	1	U	
Aroclor 1268	1.0	0.00025	1.0	1	U	
Total PCB's	1.0	0.00050	1.0	1	U	

Surrogate	Recovery	Limits	PASS/FAIL
<i>Decachlorobiphenyl</i>	100	25.7 - 116	PASS
<i>Tetrachloro-m-xylene</i>	85.0	39.7 - 130	PASS

* - Detected in the associated method Blank at a concentration >= RL

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Laboratory Report Number: 17E0065

Client Project ID: OL - OL

**METHOD BLANK
FORM 4B**

Sample ID: B102186-BLK1	Prep Date: 05/04/17 07:50	Matrix: Solid				
Instrument: ECD-4-F	Analyzed: 05/04/17 14:14	Method: SW-846 8082				
File ID: M17E0419.D	Sequence: S034580	Prep Method: 3550_P				
Batch: B102186	Units: µg/Kg wet	Analyst: ALS				
Calibration: 0000559						
Analyte	Result	MDL	RL	Dilution	Flag	Q
Aroclor 1016	33	9.8	33	1	U	
Aroclor 1221	33	7.4	33	1	U	
Aroclor 1232	33	9.2	33	1	U	
Aroclor 1242	33	3.0	33	1	U	
Aroclor 1248	33	2.9	33	1	U	
Aroclor 1254	33	2.1	33	1	U	
Aroclor 1260	33	13	33	1	U	
Aroclor 1262	33	3.9	33	1	U	
Aroclor 1268	33	2.2	33	1	U	
Total PCB's	33	9.8	33	1	U	

Surrogate	Recovery	Limits	PASS/FAIL
<i>Decachlorobiphenyl</i>	85.0	38 - 128	PASS
<i>Tetrachloro-m-xylene</i>	80.0	40 - 130	PASS

* - Detected in the associated method Blank at a concentration >= RL

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Laboratory Report Number: 17E0065

Client Project ID: OL - OL

**METHOD BLANK
FORM 4B**

Sample ID: B102245-BLK1	Prep Date: 05/04/17 14:29	Matrix: Oil				
Instrument: ECD-4-F	Analyzed: 05/04/17 18:00	Method: SW-846 8082				
File ID: M17E0432.D	Sequence: S034580	Prep Method: 3580_P				
Batch: B102245	Units: µg/Kg	Analyst: ALS				
Calibration: 0000559						
Analyte	Result	MDL	RL	Dilution	Flag	Q
Aroclor 1016	1000	160	1000	1	U	
Aroclor 1221	1000	350	1000	1	U	
Aroclor 1232	1000	130	1000	1	U	
Aroclor 1242	1000	70	1000	1	U	
Aroclor 1248	1000	40	1000	1	U	
Aroclor 1254	1000	130	1000	1	U	
Aroclor 1260	1000	190	1000	1	U	
Aroclor 1262	1000	180	1000	1	U	
Aroclor 1268	1000	250	1000	1	U	
Total PCB's	1000	1000	1000	1	U	

Surrogate	Recovery	Limits	PASS/FAIL
<i>Decachlorobiphenyl</i>	95.0	52.6 - 143	PASS
<i>Tetrachloro-m-xylene</i>	105	51.3 - 135	PASS

* - Detected in the associated method Blank at a concentration >= RL

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FORM 6:
GC Semivolatiles
SW-846 8082
Response Factor Reports

Method Path : D:\MassHunter\GCMS\1\methods\
 Method File : MPCB0131.M
 Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 Last Update : Wed Feb 01 08:47:57 2017
 Response Via : Initial Calibration

Calibration Files

0.05=M17A3102.D 0.10=M17A3103.D 0.20=M17A3104.D 0.5 =M17A3105.D 1.0 =M17A3106.D 1.5 =M17A3107.D
 2.0 =M17A3108.D

Compound	0.05	0.10	0.20	0.5	1.0	1.5	2.0	Avg	%RSD:r^2
1) Lin Tetrachloro-m...	10.822	10.578	10.357	11.558	11.572	11.743	11.632	11.180	E9 1.000
2) Lin Decachlorobiph...	8.396	8.567	8.469	9.006	9.078	9.313	8.970	8.828	E9 0.999
3) Lin AR1016peak1	2.651	2.005	1.765	1.781	1.723	1.793	1.669	1.913	E8 0.998
4) Lin AR1016peak2	3.538	3.645	3.504	3.593	3.527	3.682	3.436	3.561	E8 0.998
5) Lin AR1016peak3	7.954	7.954	7.870	8.279	8.287	8.714	8.087	8.163	E8 0.998
6) Lin AR1016peak4	3.487	3.192	3.102	3.282	3.236	3.399	3.142	3.263	E8 0.997
7) Lin AR1016peak5	3.149	2.640	2.780	2.833	2.802	2.969	2.755	2.847	E8 0.998
8) Lin AR1260peak1	6.106	6.343	5.964	6.042	6.038	6.538	5.851	6.126	E8 0.995
9) Lin AR1260peak2	2.275	2.036	2.167	2.304	2.301	2.375	2.303	2.252	E8 1.000
10) Lin AR1260peak3	4.443	4.476	4.541	4.977	4.983	4.987	4.871	4.754	E8 1.000
11) Lin AR1260peak4	1.204	1.007	0.883	1.026	1.025	0.992	1.001	1.020	E9 1.000
12) Lin AR1260peak5	1.917	2.180	2.097	2.711	2.765	2.408	2.724	2.400	E8 0.993

(#) = Out of Range

FORM 7:
GC Semivolatiles
SW-846 8082
ICV/CCV



Laboratory Report Number: 17E0065

Client Project ID:

Initial Calibration Verification (ICV)

FORM 7A

Sample ID: S032942-ICV1		Analyzed: 01/31/17 19:00		Matrix: Aqueous			
Instrument: ECD-4-F		Calibration: 0000559		Method: SW-846 8082			
File ID: M17A3110.D		Analyst: als		Sequence: S032942			
		Units: ug/mL					
Analyte		Expected	Found	RF	% Drift	UCL	Q
Aroclor 1016		0.5000	0.479	3.832624E+08	-4.3	32	
Aroclor 1260		0.5000	0.455	4.683116E+08	-9.1	30	
Decachlorobiphenyl		0.02000	0.019	8.43424E+09	-5.0		
Tetrachloro-m-xylene		0.02000	0.018	1.056959E+10	-10.0		

* - Does not meet acceptance criteria.

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Laboratory Report Number: 17E0065

Client Project ID: OL - OL

Continuing Calibration Verification (CCV)

FORM 7B

Laboratory ID: S034551-CCV2		Analyzed: 05/03/17 18:17		Matrix: Wipe			
Instrument: ECD-4-F		Calibration: 0000559		Method: SW-846 8082			
File ID: M17E0334.D		Units: ug/mL		Sequence: S034551			
Analyte		Expected	Found	Response	% Drift	UCL	Q
Aroclor 1016		1.000	1.05	409339700	5.0	15	
Aroclor 1260		1.000	1.07	552090400	7.3	15	
Decachlorobiphenyl		0.04000	0.041	373969200	2.5		
Tetrachloro-m-xylene		0.04000	0.040	465121100	0.0		

* - Does not meet acceptance criteria.

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Laboratory Report Number: 17E0065

Client Project ID: OL - OL

Continuing Calibration Verification (CCV)

FORM 7B

Laboratory ID: S034551-CCV3		Analyzed: 05/03/17 21:46		Matrix: Wipe			
Instrument: ECD-4-F		Calibration: 0000559		Method: SW-846 8082			
File ID: M17E0346.D		Units: ug/mL		Sequence: S034551			
Analyte		Expected	Found	Response	% Drift	UCL	Q
Aroclor 1016		0.5000	0.529	206937700	5.8	15	
Aroclor 1260		0.5000	0.514	261904300	2.8	15	
Decachlorobiphenyl		0.02000	0.020	179638800	0.0		
Tetrachloro-m-xylene		0.02000	0.020	235241000	0.0		

* - Does not meet acceptance criteria.

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Laboratory Report Number: 17E0065

Client Project ID: OL - OL

Continuing Calibration Verification (CCV)

FORM 7B

Laboratory ID: S034580-CCV9		Analyzed: 05/04/17 13:56		Matrix: Aqueous			
Instrument: ECD-4-F		Calibration: 0000559		Method: SW-846 8082			
File ID: M17E0418.D		Units: ug/mL		Sequence: S034580			
Analyte		Expected	Found	Response	% Drift	UCL	Q
Aroclor 1016		1.000	1.02	397658000	1.6	15	
Aroclor 1260		1.000	1.02	525209600	1.8	15	
Decachlorobiphenyl		0.04000	0.039	355036700	-2.5		
Tetrachloro-m-xylene		0.04000	0.040	469199400	0.0		

* - Does not meet acceptance criteria.

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Laboratory Report Number: 17E0065

Client Project ID: OL - OL

Continuing Calibration Verification (CCV)

FORM 7B

Laboratory ID: S034580-CCVB		Analyzed: 05/04/17 17:43		Matrix: Aqueous			
Instrument: ECD-4-F		Calibration: 0000559		Method: SW-846 8082			
File ID: M17E0431.D		Units: ug/mL		Sequence: S034580			
Analyte		Expected	Found	Response	% Drift	UCL	Q
Aroclor 1016		0.5000	0.519	202617000	3.7	15	
Aroclor 1260		0.5000	0.460	233367600	-8.0	15	
Decachlorobiphenyl		0.02000	0.017	155972100	-15.0		
Tetrachloro-m-xylene		0.02000	0.021	239967000	5.0		

* - Does not meet acceptance criteria.

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Laboratory Report Number: 17E0065

Client Project ID: OL - OL

Continuing Calibration Verification (CCV)

FORM 7B

Laboratory ID: S034580-CCVC		Analyzed: 05/04/17 22:04		Matrix: Aqueous			
Instrument: ECD-4-F		Calibration: 0000559		Method: SW-846 8082			
File ID: M17E0446.D		Units: ug/mL		Sequence: S034580			
Analyte		Expected	Found	Response	% Drift	UCL	Q
Aroclor 1016		1.000	1.03	401142000	2.6	15	
Aroclor 1260		1.000	0.898	461665400	-10.2	15	
Decachlorobiphenyl		0.04000	0.034	309245400	-15.0		
Tetrachloro-m-xylene		0.04000	0.041	480588200	2.5		

* - Does not meet acceptance criteria.

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Laboratory Report Number: 17E0065

Client Project ID: OL - OL

Continuing Calibration Verification (CCV)

FORM 7B

Laboratory ID: S034580-CCVD		Analyzed: 05/04/17 22:22		Matrix: Aqueous			
Instrument: ECD-4-F		Calibration: 0000559		Method: SW-846 8082			
File ID: M17E0447.D		Units: ug/mL		Sequence: S034580			
Analyte		Expected	Found	Response	% Drift	UCL	Q
Aroclor 1248		0.5000	0.561	131091700	12.2		
Decachlorobiphenyl		0.02000	0.016	234086700	-20.0		
Tetrachloro-m-xylene		0.02000	0.021	280298800	5.0		

* - Does not meet acceptance criteria.

Microbac Laboratories, Inc.

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FORM 10:
GC Semivolatiles
SW-846 8082
Summary for Multi-Component
Analytes

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17E0065-01
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1577

Contract: IDEMCase No: 17E0065Date Analyzed: 05/04/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.813	NA	5.313	6.313	NA
	2	6.362	NA	5.862	6.862	NA
	3	6.922	NA	6.422	7.422	NA
	4	7.078	NA	6.578	7.578	NA
	5	7.715	NA	7.215	8.215	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.365	NA	NA	NA	NA
	2	7.081	NA	NA	NA	NA
	3	7.387	NA	NA	NA	NA
	4	7.587	NA	NA	NA	NA
	5	8.025	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.014	NA	8.514	9.514	NA
	2	9.477	NA	8.977	9.977	NA
	3	9.698	NA	9.198	10.198	NA
	4	10.247	NA	9.747	10.747	NA
	5	10.749	NA	10.249	11.249	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.052	4.529	5.529	0.018
DCB(SURR)	1	11.283	11.312	10.783	11.783	0.016

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17E0065-02
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1578

Contract: IDEMCase No: 17E0065Date Analyzed: 05/04/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.813	NA	5.313	6.313	NA
	2	6.362	NA	5.862	6.862	NA
	3	6.922	NA	6.422	7.422	NA
	4	7.078	NA	6.578	7.578	NA
	5	7.715	NA	7.215	8.215	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.365	6.374	NA	NA	0.179
	2	7.081	7.081	NA	NA	0.226
	3	7.387	7.391	NA	NA	0.234
	4	7.587	7.592	NA	NA	0.244
	5	8.025	8.026	NA	NA	0.325
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.014	NA	8.514	9.514	NA
	2	9.477	NA	8.977	9.977	NA
	3	9.698	NA	9.198	10.198	NA
	4	10.247	NA	9.747	10.747	NA
	5	10.749	NA	10.249	11.249	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.049	4.529	5.529	0.016
DCB(SURR)	1	11.283	11.310	10.783	11.783	0.014

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17E0065-03
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1579

Contract: IDEMCase No: 17E0065Date Analyzed: 05/04/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.813	NA	5.313	6.313	NA
	2	6.362	NA	5.862	6.862	NA
	3	6.922	NA	6.422	7.422	NA
	4	7.078	NA	6.578	7.578	NA
	5	7.715	NA	7.215	8.215	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.365	6.372	NA	NA	1.568
	2	7.081	7.079	NA	NA	3.515
	3	7.387	7.386	NA	NA	0.815
	4	7.587	7.586	NA	NA	0.812
	5	8.025	8.021	NA	NA	1.433
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.014	NA	8.514	9.514	NA
	2	9.477	NA	8.977	9.977	NA
	3	9.698	NA	9.198	10.198	NA
	4	10.247	NA	9.747	10.747	NA
	5	10.749	NA	10.249	11.249	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	NA	4.529	5.529	NA
DCB(SURR)	1	11.283	11.292	10.783	11.783	0.023

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17E0065-04
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1580

Contract: IDEMCase No: 17E0065Date Analyzed: 05/04/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.813	NA	5.313	6.313	NA
	2	6.362	NA	5.862	6.862	NA
	3	6.922	NA	6.422	7.422	NA
	4	7.078	NA	6.578	7.578	NA
	5	7.715	NA	7.215	8.215	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.365	6.362	NA	NA	0.308
	2	7.081	7.077	NA	NA	0.862
	3	7.387	7.384	NA	NA	1.188
	4	7.587	7.585	NA	NA	1.392
	5	8.025	8.020	NA	NA	2.515
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.014	NA	8.514	9.514	NA
	2	9.477	NA	8.977	9.977	NA
	3	9.698	NA	9.198	10.198	NA
	4	10.247	NA	9.747	10.747	NA
	5	10.749	NA	10.249	11.249	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.036	4.529	5.529	0.002
DCB(SURR)	1	11.283	NA	10.783	11.783	NA

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17E0065-05
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1581

Contract: IDEMCase No: 17E0065Date Analyzed: 05/03/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.821	NA	5.321	6.321	NA
	2	6.366	NA	5.866	6.866	NA
	3	6.928	NA	6.428	7.428	NA
	4	7.085	NA	6.585	7.585	NA
	5	7.719	NA	7.219	8.219	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.017	NA	8.517	9.517	NA
	2	9.480	NA	8.980	9.980	NA
	3	9.701	NA	9.201	10.201	NA
	4	10.249	NA	9.749	10.749	NA
	5	10.751	NA	10.251	11.251	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.036	5.040	4.536	5.536	0.014
DCB(SURR)	1	11.284	11.284	10.784	11.784	0.013

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102163-BLK1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102163-BLK1

Contract: IDEMCase No: 17E0065Date Analyzed: 05/03/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.821	NA	5.321	6.321	NA
	2	6.366	6.393	5.866	6.866	NA
	3	6.928	NA	6.428	7.428	NA
	4	7.085	NA	6.585	7.585	NA
	5	7.719	NA	7.219	8.219	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.017	NA	8.517	9.517	NA
	2	9.480	NA	8.980	9.980	NA
	3	9.701	NA	9.201	10.201	NA
	4	10.249	NA	9.749	10.749	NA
	5	10.751	NA	10.251	11.251	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.036	5.039	4.536	5.536	0.017
DCB(SURR)	1	11.284	11.284	10.784	11.784	0.020

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102163-BS1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102163-BS1

Contract: IDEMCase No: 17E0065Date Analyzed: 05/03/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.821	5.824	5.321	6.321	0.468
	2	6.366	6.368	5.866	6.866	0.487
	3	6.928	6.931	6.428	7.428	0.465
	4	7.085	7.086	6.585	7.585	0.511
	5	7.719	7.719	7.219	8.219	0.539
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.017	9.018	8.517	9.517	0.491
	2	9.480	9.480	8.980	9.980	0.511
	3	9.701	9.701	9.201	10.201	0.454
	4	10.249	10.251	9.749	10.749	0.452
	5	10.751	10.752	10.251	11.251	0.460
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.036	5.037	4.536	5.536	0.017
DCB(SURR)	1	11.284	11.285	10.784	11.784	0.019

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102163-BSD1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102163-BSD1

Contract: IDEMCase No: 17E0065Date Analyzed: 05/03/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.821	5.824	5.321	6.321	0.465
	2	6.366	6.367	5.866	6.866	0.486
	3	6.928	6.931	6.428	7.428	0.471
	4	7.085	7.085	6.585	7.585	0.511
	5	7.719	7.719	7.219	8.219	0.544
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.017	9.017	8.517	9.517	0.492
	2	9.480	9.480	8.980	9.980	0.508
	3	9.701	9.701	9.201	10.201	0.454
	4	10.249	10.251	9.749	10.749	0.455
	5	10.751	10.752	10.251	11.251	0.462
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.036	5.037	4.536	5.536	0.017
DCB(SURR)	1	11.284	11.284	10.784	11.784	0.019

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102186-BLK1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102186-BLK1

Contract: IDEMCase No: 17E0065Date Analyzed: 05/04/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.813	5.798	5.313	6.313	NA
	2	6.362	6.322	5.862	6.862	NA
	3	6.922	NA	6.422	7.422	NA
	4	7.078	NA	6.578	7.578	NA
	5	7.715	NA	7.215	8.215	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.365	NA	NA	NA	NA
	2	7.081	NA	NA	NA	NA
	3	7.387	NA	NA	NA	NA
	4	7.587	NA	NA	NA	NA
	5	8.025	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.014	NA	8.514	9.514	NA
	2	9.477	NA	8.977	9.977	NA
	3	9.698	NA	9.198	10.198	NA
	4	10.247	NA	9.747	10.747	NA
	5	10.749	NA	10.249	11.249	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.031	4.529	5.529	0.016
DCB(SURR)	1	11.283	11.283	10.783	11.783	0.017

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102186-BS1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102186-BS1

Contract: IDEMCase No: 17E0065Date Analyzed: 05/04/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.813	5.814	5.313	6.313	0.320
	2	6.362	6.363	5.862	6.862	0.293
	3	6.922	6.925	6.422	7.422	0.274
	4	7.078	7.080	6.578	7.578	0.302
	5	7.715	7.715	7.215	8.215	0.284
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.365	NA	NA	NA	NA
	2	7.081	NA	NA	NA	NA
	3	7.387	NA	NA	NA	NA
	4	7.587	NA	NA	NA	NA
	5	8.025	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.014	9.014	8.514	9.514	0.275
	2	9.477	9.477	8.977	9.977	0.272
	3	9.698	9.698	9.198	10.198	0.256
	4	10.247	10.248	9.747	10.747	0.259
	5	10.749	10.749	10.249	11.249	0.288
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.032	4.529	5.529	0.012
DCB(SURR)	1	11.283	11.282	10.783	11.783	0.013

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102186-BSD1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102186-BSD1

Contract: IDEMCase No: 17E0065Date Analyzed: 05/04/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.813	5.815	5.313	6.313	0.358
	2	6.362	6.364	5.862	6.862	0.330
	3	6.922	6.925	6.422	7.422	0.307
	4	7.078	7.080	6.578	7.578	0.353
	5	7.715	7.715	7.215	8.215	0.309
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.365	NA	NA	NA	NA
	2	7.081	NA	NA	NA	NA
	3	7.387	NA	NA	NA	NA
	4	7.587	NA	NA	NA	NA
	5	8.025	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.014	9.015	8.514	9.514	0.300
	2	9.477	9.478	8.977	9.977	0.295
	3	9.698	9.699	9.198	10.198	0.279
	4	10.247	10.248	9.747	10.747	0.286
	5	10.749	10.749	10.249	11.249	0.295
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.033	4.529	5.529	0.013
DCB(SURR)	1	11.283	11.283	10.783	11.783	0.014

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102245-BLK1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102245-BLK1

Contract: IDEMCase No: 17E0065Date Analyzed: 05/04/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.813	5.794	5.313	6.313	NA
	2	6.362	NA	5.862	6.862	NA
	3	6.922	NA	6.422	7.422	NA
	4	7.078	NA	6.578	7.578	NA
	5	7.715	NA	7.215	8.215	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.365	NA	NA	NA	NA
	2	7.081	NA	NA	NA	NA
	3	7.387	NA	NA	NA	NA
	4	7.587	NA	NA	NA	NA
	5	8.025	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.014	NA	8.514	9.514	NA
	2	9.477	NA	8.977	9.977	NA
	3	9.698	NA	9.198	10.198	NA
	4	10.247	NA	9.747	10.747	NA
	5	10.749	NA	10.249	11.249	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.034	4.529	5.529	0.021
DCB(SURR)	1	11.283	11.282	10.783	11.783	0.019

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102245-BS1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102245-BS1

Contract: IDEMCase No: 17E0065Date Analyzed: 05/04/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.813	5.816	5.313	6.313	0.546
	2	6.362	6.364	5.862	6.862	0.514
	3	6.922	6.925	6.422	7.422	0.499
	4	7.078	7.080	6.578	7.578	0.521
	5	7.715	7.716	7.215	8.215	0.529
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.365	NA	NA	NA	NA
	2	7.081	NA	NA	NA	NA
	3	7.387	NA	NA	NA	NA
	4	7.587	NA	NA	NA	NA
	5	8.025	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.014	9.015	8.514	9.514	0.486
	2	9.477	9.477	8.977	9.977	0.504
	3	9.698	9.699	9.198	10.198	0.479
	4	10.247	10.247	9.747	10.747	0.502
	5	10.749	10.749	10.249	11.249	0.544
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.033	4.529	5.529	0.021
DCB(SURR)	1	11.283	11.282	10.783	11.783	0.020

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102245-BSD1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102245-BSD1

Contract: IDEMCase No: 17E0065Date Analyzed: 05/04/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.813	5.821	5.313	6.313	0.532
	2	6.362	6.368	5.862	6.862	0.513
	3	6.922	6.928	6.422	7.422	0.500
	4	7.078	7.083	6.578	7.578	0.525
	5	7.715	7.718	7.215	8.215	0.528
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	6.365	NA	NA	NA	NA
	2	7.081	NA	NA	NA	NA
	3	7.387	NA	NA	NA	NA
	4	7.587	NA	NA	NA	NA
	5	8.025	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.014	9.015	8.514	9.514	0.484
	2	9.477	9.478	8.977	9.977	0.502
	3	9.698	9.699	9.198	10.198	0.481
	4	10.247	10.247	9.747	10.747	0.502
	5	10.749	10.749	10.249	11.249	0.544
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.041	4.529	5.529	0.021
DCB(SURR)	1	11.283	11.282	10.783	11.783	0.020

Section A:
GC Semivolatiles
SW-846 8082
Batch / Sequence Raw Data

PREPARATION BENCH SHEET

B102163

Microbac Laboratories, Inc. - Chicagoland

Printed: 5/8/2017 6:08:15PM

repared using: GC Semivolatiles - 3550_PCB_WIPE_P

Matrix: Wipe

Lab Number	Prepared	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	Comments
17E0064-01 8082_3550	05/03/2017 13:46	1	10				IDEM Wipes ICOC
17E0065-05 8082_3550	05/03/2017 13:46	1	10				IDEM Wipes ICOC
B102163-BLK1	05/03/2017 13:46	1	10				
B102163-BS1	05/03/2017 13:46	1	10	0093897		1000	
B102163-BSD1	05/03/2017 13:46	1	10	0093897		1000	

PREPARATION BENCH SHEET

B102186

Microbac Laboratories, Inc. - Chicagoland

Printed: 5/8/2017 6:07:55PM

Prepared using: GC Semivolatiles - 3550_P

Matrix: Solid

Lab Number	Prepared	Initial (g)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
17E0065-03 8082	05/04/2017 07:50	5.09	10				ICOC
17E0065-04 8082	05/04/2017 07:50	5.05	10				ICOC
17E0103-01 8082	05/04/2017 07:50	1.08	10				
17E0104-01 8082	05/04/2017 07:50	10.21	10				
17E0155-01 8082	05/04/2017 07:50	15.22	10				Please use exact units and on dry weiPlease use exact units and on dry weight basis c
17E0156-01 8082	05/04/2017 07:50	5.57	10				must have <4 mg/kg detection limit must have <4 mg/kg detection limit
B102186-BLK1	05/04/2017 07:50	30	10				
B102186-BS1	05/04/2017 07:50	30	10	0093897		1000	
B102186-BSD1	05/04/2017 07:50	30	10	0093897		1000	

140709b/c
bal#13
9719595

Spiking Witnessed By _____ Date _____ Preparation Reviewed By _____ Date _____ Extracts Received By _____ Date _____

PREPARATION BENCH SHEET

B102245

Microbac Laboratories, Inc. - Chicagoland

Prepared using: GC Semivolatiles - 3580_P

Printed: 5/8/2017 6:04:52PM

Matrix: Oil

Lab Number	Prepared	Initial (g)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
17E0062-01 8082	05/04/2017 14:29	1	10				ICOC
17E0063-01 8082	05/04/2017 14:29	1	10				ICOC
17E0065-01 8082	05/04/2017 14:29	1.01	10				ICOC
17E0065-02 8082	05/04/2017 14:29	1.01	10				ICOC
17E0107-01 8082	05/04/2017 14:29	1.01	10				
17E0107-02 8082	05/04/2017 14:29	1	10				
17E0109-01 8082	05/04/2017 14:29	1	10				
17E0109-02 8082	05/04/2017 14:29	1.01	10				
17E0109-03 8082	05/04/2017 14:29	1	10				
17E0109-04 8082	05/04/2017 14:29	1	10				
B102245-BLK1	05/04/2017 14:29	1	10				
B102245-BS1	05/04/2017 14:29	1	10	0093372		1000	
B102245-BSD1	05/04/2017 14:29	1	10	0093372		1000	

BB08G

Spiking Witnessed By _____ Date _____ Preparation Reviewed By _____ Date _____ Extracts Received By _____ Date _____

ANALYSIS SEQUENCE

S034551

Instrument: ECD-4-F

Calibration ID: UNASSIGNED

Created: 05/03/2017 13:04

Printed: 5/8/2017 6:12:11PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
S034551-CCV1	QC		1		0092784		
B102133-BLK1	QC		2				
B102133-BS1	QC		3				
B102133-BSD1	QC		4				
17E0135-01	8082	A	5				
17E0135-02	8082	A	6				
17E0135-03	8082	A	7				
17E0135-04	8082	A	8				
17E0135-05	8082	A	9				
17E0135-06	8082	A	10				
17E0135-07	8082	A	11				
17E0135-08	8082	A	12				
17E0135-09	8082	A	13				
17E0168-01	8082	A	14				
17E0169-01	8082	A	15				
17E0169-02	8082	A	16				
17E0171-01	8082	A	17				
S034551-CCV2	QC		18		0092785		
B102137-BLK1	QC		19				
B102137-BS1	QC		20				
17E0026-01	8082_TC	A	21				Extract sufficient sample to yield 500mL to hit RL requirements
B102137-MS1	QC		22				
B102137-MSD1	QC		23				

Samples Loaded By

Date

Data Processed By

Date

ANALYSIS SEQUENCE

S034551

Instrument: ECD-4-F

Calibration ID: UNASSIGNED

Created: 05/03/2017 13:04

Printed: 5/8/2017 6:12:11PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
B102163-BLK1	QC		24				
B102163-BS1	QC		25				
B102163-BSD1	QC		26				
17E0064-01	8082_3550	A	27				IDEM Wipes ICOC
17E0065-05	8082_3550	A	28				IDEM Wipes ICOC
S034551-CCV3	QC		29		0092784		

Samples Loaded By

Date

Data Processed By

Date

ANALYSIS SEQUENCE

S034580

Instrument: ECD-4-F

Calibration ID: UNASSIGNED

Created: 05/04/2017 09:17

Printed: 5/8/2017 6:11:42PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
S034580-CCV1	QC		1		0090876		
S034580-CCV2	QC		2		0092049		
S034580-CCV3	QC		3		0088907		
S034580-CCV4	QC		4		0090260		
S034580-CCV5	QC		5		0092784		
B102135-BLK1	QC		6				
B102135-BS1	QC		7				
B102135-BSD1	QC		8				
B102135-BS2	QC		9				
B102135-BSD2	QC		10				
17E0116-01	608_PEST	A	11				
17E0116-01	608_PCB	A	12				limit 0.0005mg/l
17E0116-02	608_PEST	A	13				
17E0116-02	608_PCB	A	14				limit 0.0005mg/l
S034580-CCV7	QC		15		0088908		
S034580-CCV8	QC		16		0090261		
S034580-CCV9	QC		17		0092785		
B102186-BLK1	QC		18				
B102186-BS1	QC		19				
B102186-BSD1	QC		20				
17E0065-03	8082	A	21				ICOC
17E0103-01	8082	A	22				
S034580-CCVA	QC		23		0092048		

Samples Loaded By

Date

Data Processed By

Date

ANALYSIS SEQUENCE

S034580

Instrument: ECD-4-F

Calibration ID: UNASSIGNED

Created: 05/04/2017 09:17

Printed: 5/8/2017 6:11:42PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
17E0065-04	8082	A	24				ICOC
17E0104-01	8082	A	25				
17E0155-01	8082	A	26				Please use exact units and on dry weight basis only
17E0156-01	8082	A	27				must have <4 mg/kg detection limit
S034580-CCVB	QC		28		0092784		
B102245-BLK1	QC		29				
B102245-BSI	QC		30				
B102245-BSI	QC		31				
17E0062-01	8082	A	32				ICOC
17E0063-01	8082	A	33				ICOC
17E0065-01	8082	A	34				ICOC
17E0065-02	8082	A	35				ICOC
17E0107-01	8082	C	36				
17E0107-02	8082	B	37				
17E0109-01	8082	A	38				
17E0109-02	8082	A	39				
17E0109-03	8082	A	40				
17E0109-04	8082	C	41				
S034580-CCVC	QC		42		0092785		
S034580-CCVD	QC		43		0092560		

Samples Loaded By

Date

Data Processed By

Date

Section B:
GC Semivolatiles
SW-846 8082
Sample Raw Data

Data File : D:\MassHunter\Data\M17E03\M17E0344.D Vial: 41
Acq On : 03 May 2017 09:11 pm Operator: ALS
Sample : 17E0065-05 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 04 09:08:06 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1) S Tetrachloro-m-xylene	5.040	160623238	0.014	ug/mL
2) S Decachlorobiphenyl	11.284	118416308	0.013	ug/mLm3
Target Compounds				
3) AR1016peak1	0.000	0	N.D.	ug/mLd
4) AR1016peak2	0.000	0	N.D.	ug/mLd
5) AR1016peak3	0.000	0	N.D.	ug/mLd
6) AR1016peak4	0.000	0	N.D.	ug/mLd
7) AR1016peak5	0.000	0	N.D.	ug/mLd
8) AR1260peak1	0.000	0	N.D.	ug/mLd
9) AR1260peak2	0.000	0	N.D.	ug/mLd
10) AR1260peak3	0.000	0	N.D.	ug/mLd
11) AR1260peak4	0.000	0	N.D.	ug/mLd
12) AR1260peak5	0.000	0	N.D.	ug/mLd

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E03\M17E0344.D

Vial: 41

Acq On : 03 May 2017 09:11 pm

Operator: ALS

Sample : 17E0065-05

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 04 09:08:06 2017

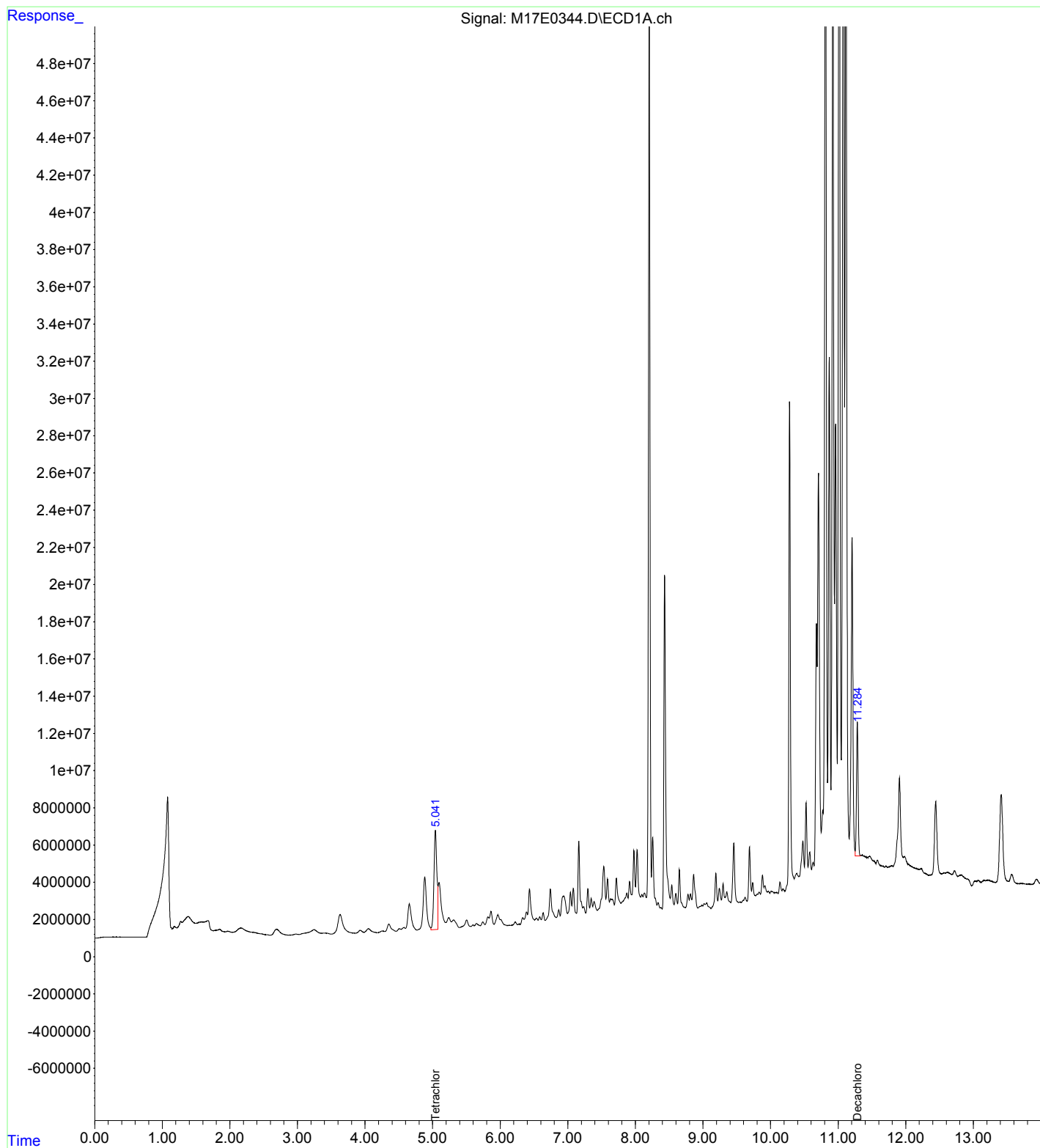
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0422.D Vial: 20
Acq On : 04 May 2017 03:06 pm Operator: ALS
Sample : 17E0065-03 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 08:10:26 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1) S Tetrachloro-m-xylene	0.000	0	N.D.	ug/mLd
2) S Decachlorobiphenyl	11.292	208050467	0.023	ug/mLm3
Target Compounds				
3) AR1016peak1	0.000	0	N.D.	ug/mLd
4) AR1016peak2	0.000	0	N.D.	ug/mLd
5) AR1016peak3	0.000	0	N.D.	ug/mLd
6) AR1016peak4	0.000	0	N.D.	ug/mLd
7) AR1016peak5	0.000	0	N.D.	ug/mLd
8) AR1260peak1	0.000	0	N.D.	ug/mLd
9) AR1260peak2	0.000	0	N.D.	ug/mLd
10) AR1260peak3	0.000	0	N.D.	ug/mLd
11) AR1260peak4	0.000	0	N.D.	ug/mLd
12) AR1260peak5	0.000	0	N.D.	ug/mLd

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0422.D

Vial: 20

Acq On : 04 May 2017 03:06 pm

Operator: ALS

Sample : 17E0065-03

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 08:10:26 2017

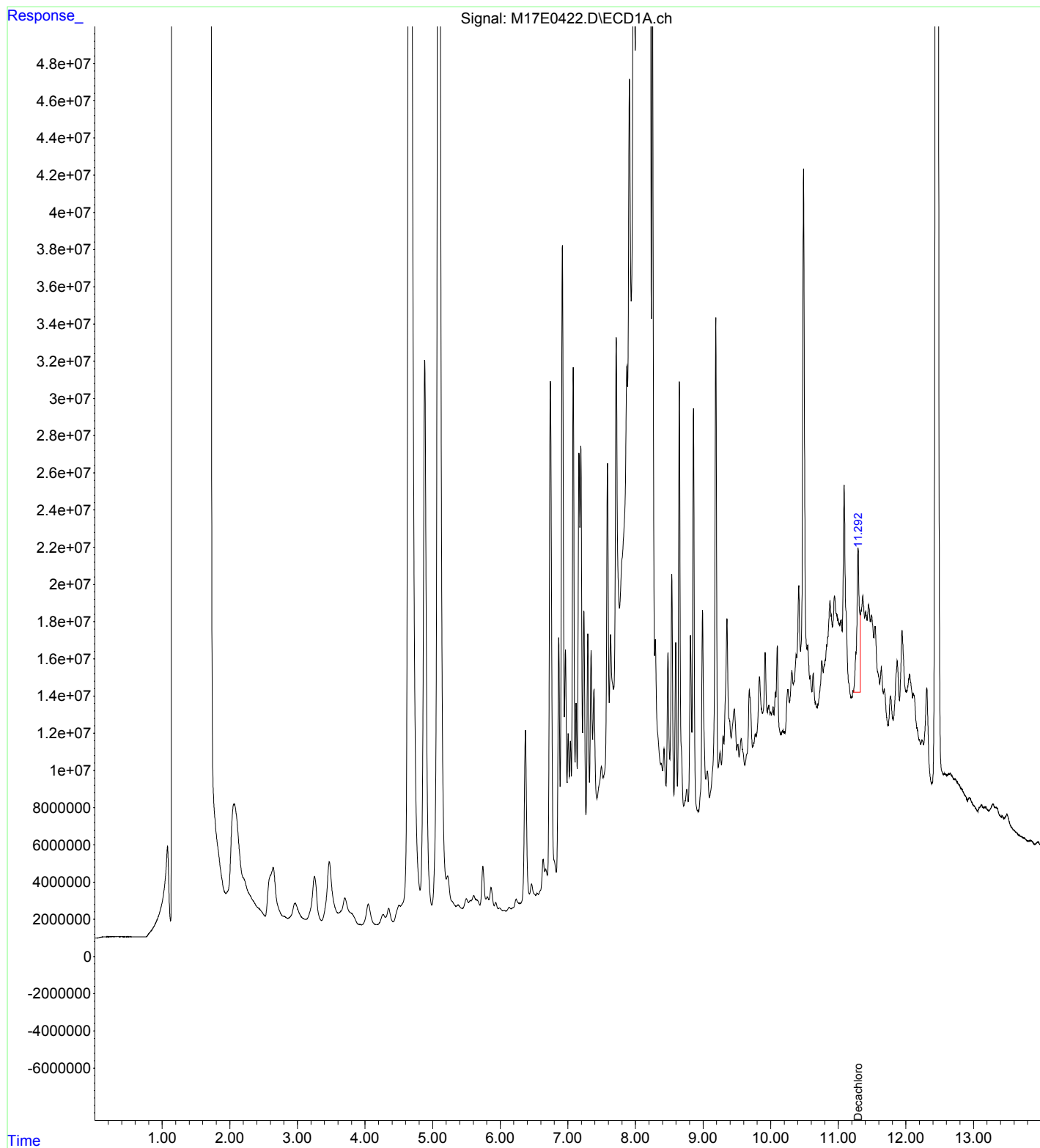
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0422.D Vial: 20
Acq On : 04 May 2017 03:06 pm Operator: ALS
Sample : 17E0065-03 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 16:00:32 2017

Quant Method : D:\MassHunter\GCMS\1\methods\M1248.M
Quant Title : *8/10/14-ECD#4-COLM-CLP2-1248
QLast Update : Fri Dec 02 09:57:05 2016
Response via : Continuing Cal File: D:\MassHunter\Data\M113016\M113043.D
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.090	3296522319	0.268 ug/mL
2) S Decachlorobiphenyl	11.292	132983372	0.013 ug/mLm3
Target Compounds			
3) Ar1248peak1	6.372	214677127	1.568 ug/mLm3
4) Ar1248peak2	7.079	448363738	3.515 ug/mLm3
5) Ar1248peak3	7.386	125239426	0.815 ug/mLm3
6) Ar1248peak4	7.586	248581954	0.812 ug/mLm3
7) Ar1248peak5	8.021	586601021	1.433 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0422.D

Vial: 20

Acq On : 04 May 2017 03:06 pm

Operator: ALS

Sample : 17E0065-03

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 16:00:32 2017

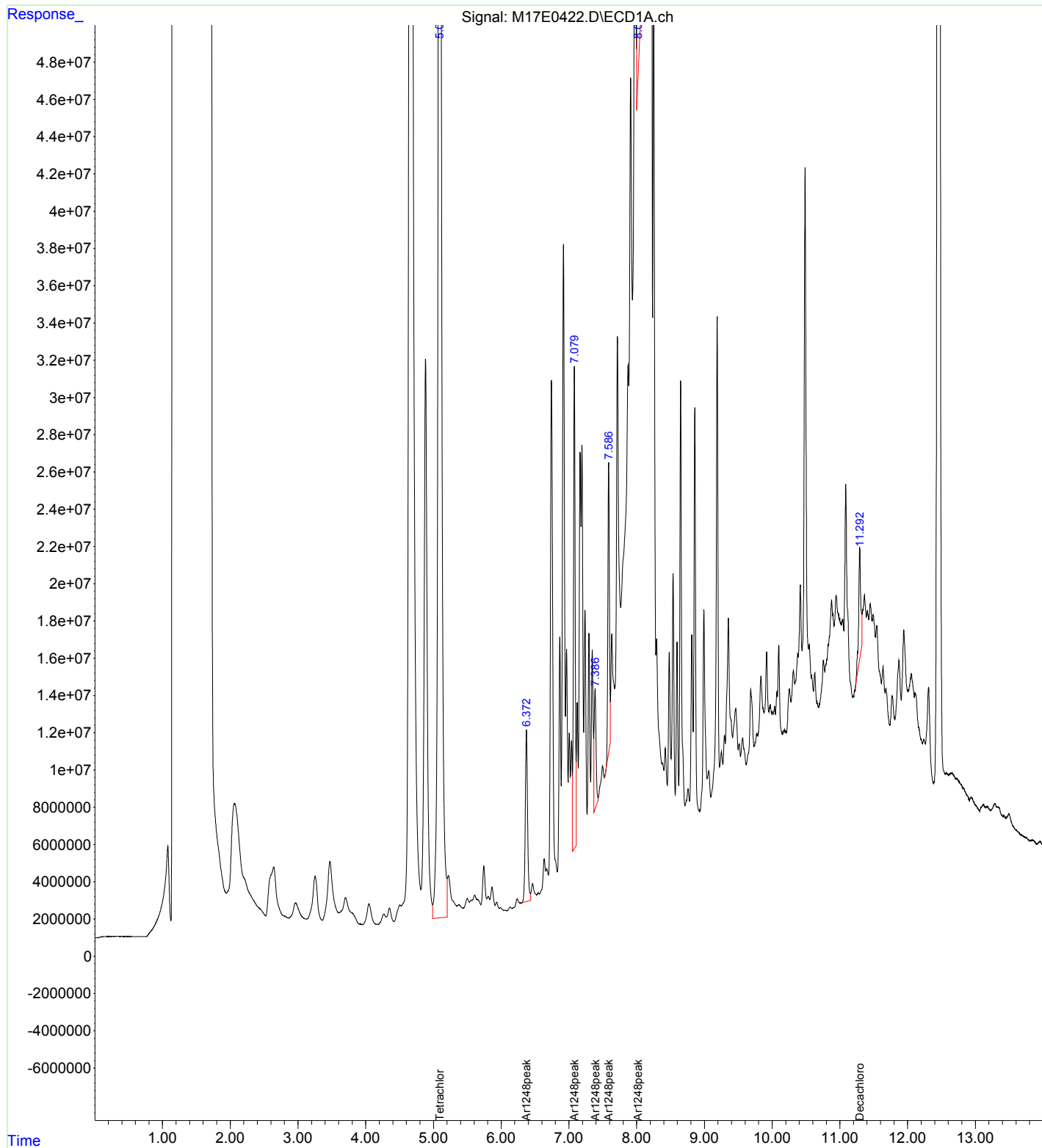
Quant Method : D:\MassHunter\GCMS\1\methods\M1248.M

Quant Title : *8/10/14-ECD#4-COLM-CLP2-1248

QLast Update : Fri Dec 02 09:57:05 2016

Response via : Continuing Cal File: D:\MassHunter\Data\M113016\M113043.D

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0426.D Vial: 21
Acq On : 04 May 2017 04:16 pm Operator: ALS
Sample : 17E0065-04 Inst : ECD 4
Misc : Multiplr: 10.00
Quant Time: May 05 08:10:59 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1) S Tetrachloro-m-xylene	5.036	15614667	0.002	ug/mL
2) S Decachlorobiphenyl	0.000	0	N.D.	ug/mLd
Target Compounds				
3) AR1016peak1	0.000	0	N.D.	ug/mLd
4) AR1016peak2	0.000	0	N.D.	ug/mLd
5) AR1016peak3	0.000	0	N.D.	ug/mLd
6) AR1016peak4	0.000	0	N.D.	ug/mLd
7) AR1016peak5	0.000	0	N.D.	ug/mLd
8) AR1260peak1	0.000	0	N.D.	ug/mLd
9) AR1260peak2	0.000	0	N.D.	ug/mLd
10) AR1260peak3	0.000	0	N.D.	ug/mLd
11) AR1260peak4	0.000	0	N.D.	ug/mLd
12) AR1260peak5	0.000	0	N.D.	ug/mLd

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0426.D

Vial: 21

Acq On : 04 May 2017 04:16 pm

Operator: ALS

Sample : 17E0065-04

Inst : ECD 4

Misc :

Multiplr: 10.00

Quant Time: May 05 08:10:59 2017

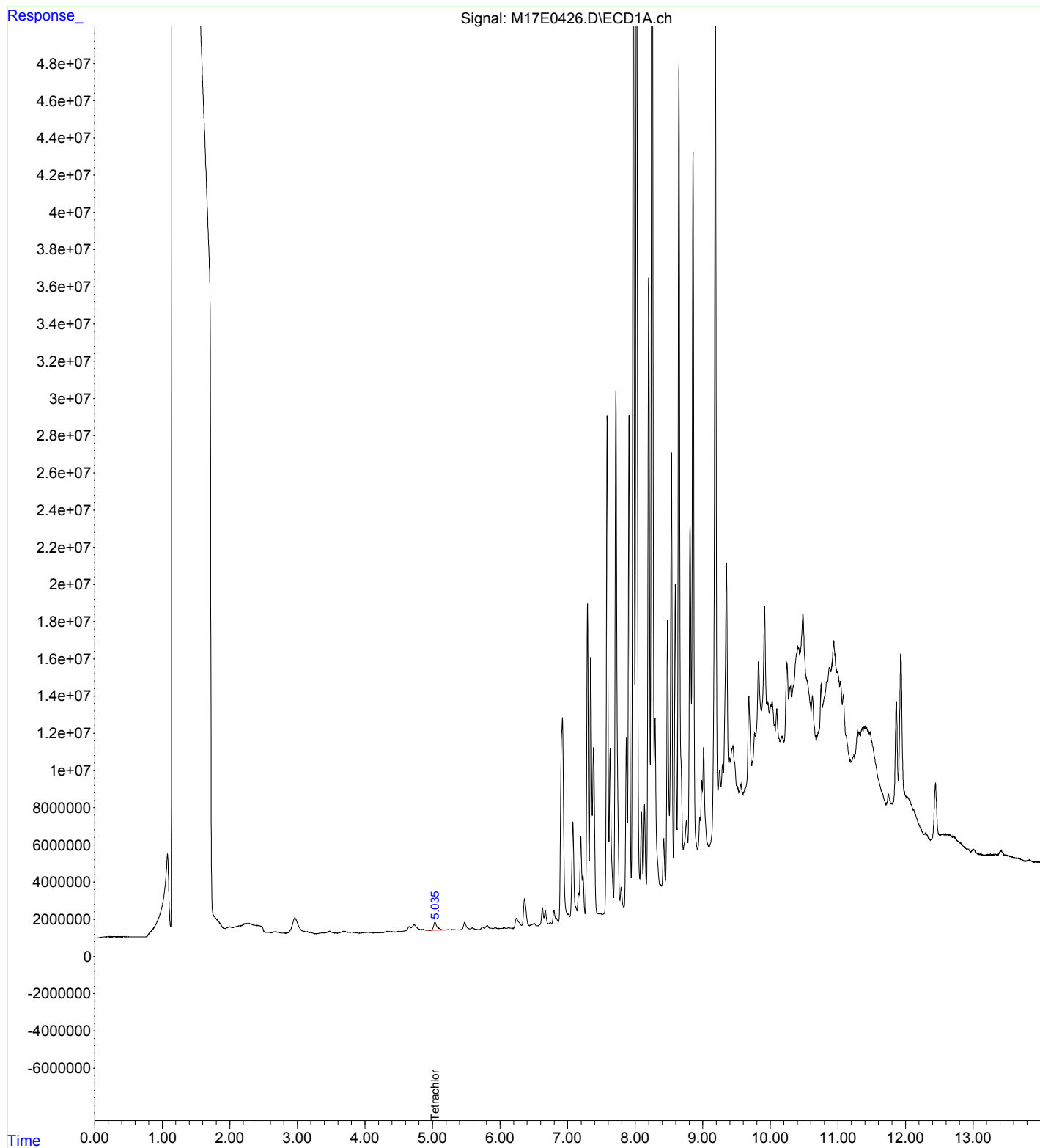
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0426.D Vial: 21
Acq On : 04 May 2017 04:16 pm Operator: ALS
Sample : 17E0065-04 Inst : ECD 4
Misc : Multiplr: 10.00
Quant Time: May 05 09:11:48 2017

Quant Method : D:\MassHunter\GCMS\1\methods\M1248.M
Quant Title : *8/10/14-ECD#4-COLM-CLP2-1248
QLast Update : Fri Dec 02 09:57:05 2016
Response via : Continuing Cal File: D:\MassHunter\Data\M113016\M113043.D
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.036	15614667	0.001 ug/mL
2) S Decachlorobiphenyl	0.000	0	N.D. ug/mLd
Target Compounds			
3) Ar1248peak1	6.362	42112259	0.308 ug/mL
4) Ar1248peak2	7.077	109884848	0.862 ug/mLm3
5) Ar1248peak3	7.384	182575323	1.188 ug/mL
6) Ar1248peak4	7.585	425960334	1.392 ug/mL
7) Ar1248peak5	8.020	1029976037	2.515 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0426.D

Vial: 21

Acq On : 04 May 2017 04:16 pm

Operator: ALS

Sample : 17E0065-04

Inst : ECD 4

Misc :

Multiplr: 10.00

Quant Time: May 05 09:11:48 2017

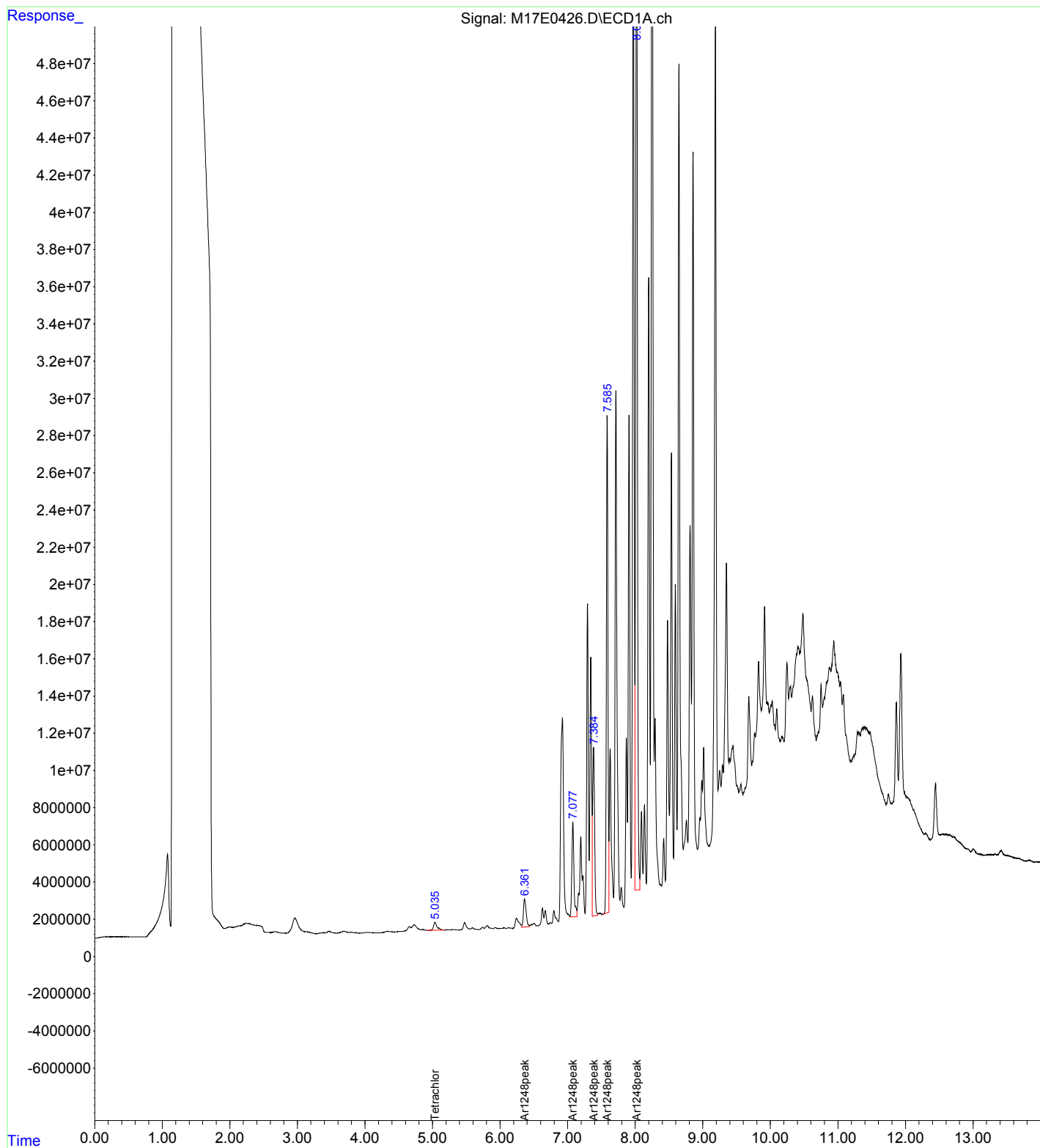
Quant Method : D:\MassHunter\GCMS\1\methods\M1248.M

Quant Title : *8/10/14-ECD#4-COLM-CLP2-1248

QLast Update : Fri Dec 02 09:57:05 2016

Response via : Continuing Cal File: D:\MassHunter\Data\M113016\M113043.D

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0437.D Vial: 32
Acq On : 04 May 2017 07:27 pm Operator: ALS
Sample : 17E0065-01 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 08:13:43 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1) S Tetrachloro-m-xylene	5.052	205397902	0.018	ug/mL
2) S Decachlorobiphenyl	11.312	145727457	0.016	ug/mLm3
Target Compounds				
3) AR1016peak1	0.000	0	N.D.	ug/mLd
4) AR1016peak2	0.000	0	N.D.	ug/mLd
5) AR1016peak3	0.000	0	N.D.	ug/mLd
6) AR1016peak4	0.000	0	N.D.	ug/mLd
7) AR1016peak5	0.000	0	N.D.	ug/mLd
8) AR1260peak1	0.000	0	N.D.	ug/mLd
9) AR1260peak2	0.000	0	N.D.	ug/mLd
10) AR1260peak3	0.000	0	N.D.	ug/mLd
11) AR1260peak4	0.000	0	N.D.	ug/mLd
12) AR1260peak5	0.000	0	N.D.	ug/mLd

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0437.D

Vial: 32

Acq On : 04 May 2017 07:27 pm

Operator: ALS

Sample : 17E0065-01

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 08:13:43 2017

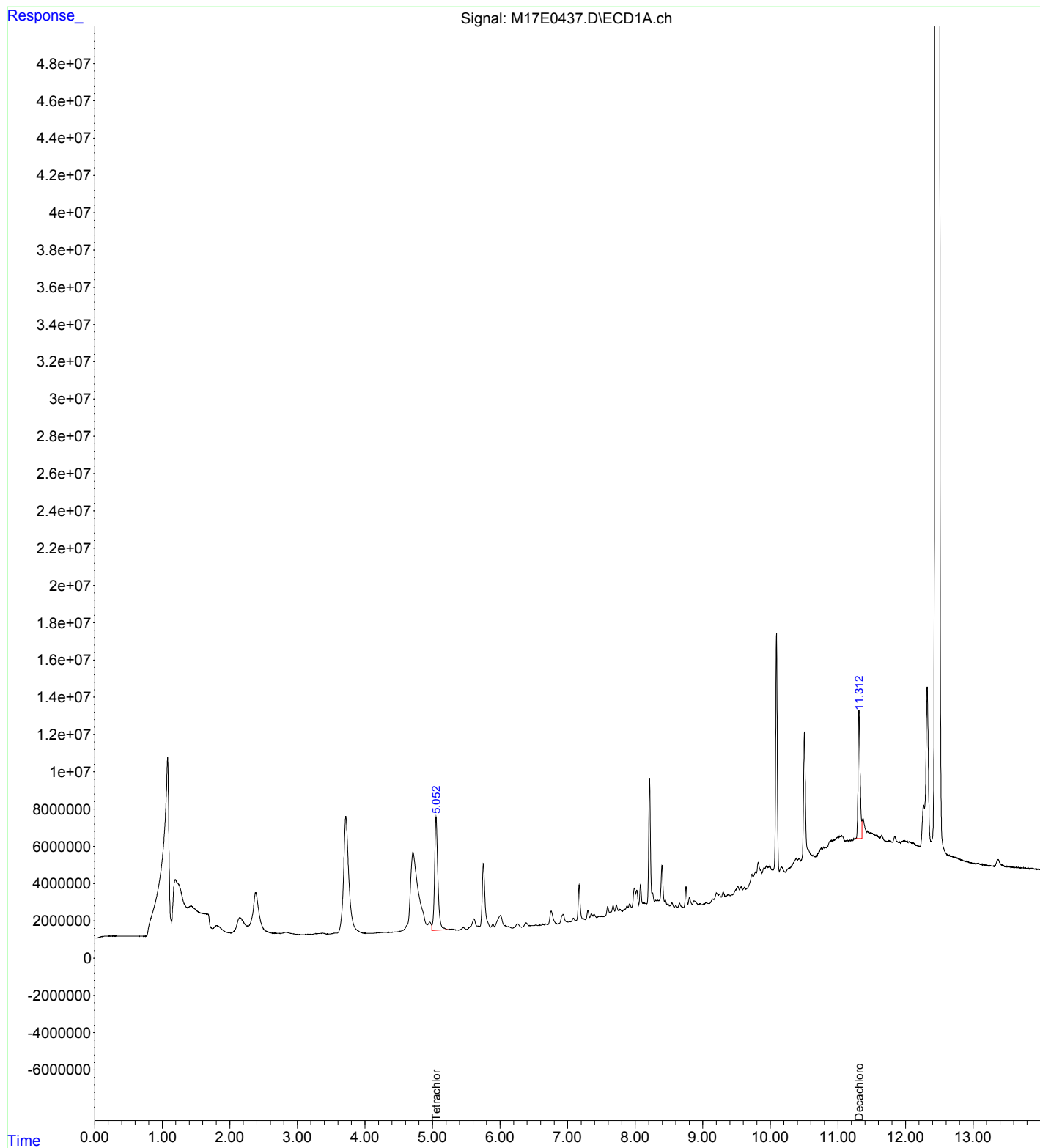
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0438.D Vial: 33
Acq On : 04 May 2017 07:45 pm Operator: ALS
Sample : 17E0065-02 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 08:13:59 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1) S Tetrachloro-m-xylene	5.049	177241470	0.016	ug/mLm3
2) S Decachlorobiphenyl	11.310	122881672	0.014	ug/mLm3
Target Compounds				
3) AR1016peak1	0.000	0	N.D.	ug/mLd
4) AR1016peak2	0.000	0	N.D.	ug/mLd
5) AR1016peak3	0.000	0	N.D.	ug/mLd
6) AR1016peak4	0.000	0	N.D.	ug/mLd
7) AR1016peak5	0.000	0	N.D.	ug/mLd
8) AR1260peak1	0.000	0	N.D.	ug/mLd
9) AR1260peak2	0.000	0	N.D.	ug/mLd
10) AR1260peak3	0.000	0	N.D.	ug/mLd
11) AR1260peak4	0.000	0	N.D.	ug/mLd
12) AR1260peak5	0.000	0	N.D.	ug/mLd

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0438.D

Vial: 33

Acq On : 04 May 2017 07:45 pm

Operator: ALS

Sample : 17E0065-02

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 08:13:59 2017

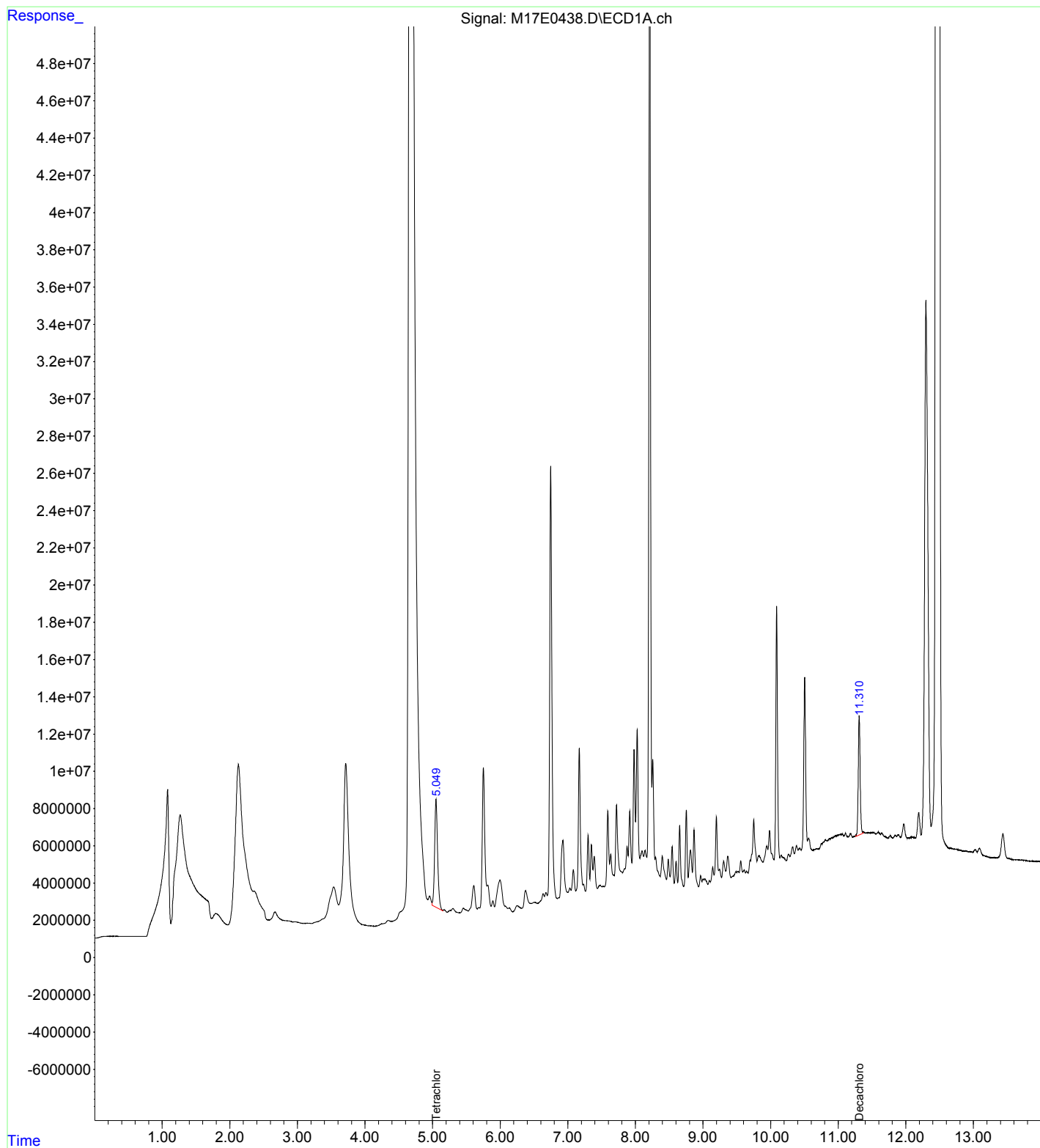
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0438.D Vial: 33
Acq On : 04 May 2017 07:45 pm Operator: ALS
Sample : 17E0065-02 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 15:58:14 2017

Quant Method : D:\MassHunter\GCMS\1\methods\M1248.M
Quant Title : *8/10/14-ECD#4-COLM-CLP2-1248
QLast Update : Fri Dec 02 09:57:05 2016
Response via : Continuing Cal File: D:\MassHunter\Data\M113016\M113043.D
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.050	236916986	0.019 ug/mL
2) S Decachlorobiphenyl	11.310	119720048	0.012 ug/mLm3
Target Compounds			
3) Ar1248peak1	6.374	24528525	0.179 ug/mLm3
4) Ar1248peak2	7.081	28780776	0.226 ug/mLm3
5) Ar1248peak3	7.391	35976536	0.234 ug/mLm3
6) Ar1248peak4	7.592	74612216	0.244 ug/mLm3
7) Ar1248peak5	8.026	133232833	0.325 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0438.D

Vial: 33

Acq On : 04 May 2017 07:45 pm

Operator: ALS

Sample : 17E0065-02

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 15:58:14 2017

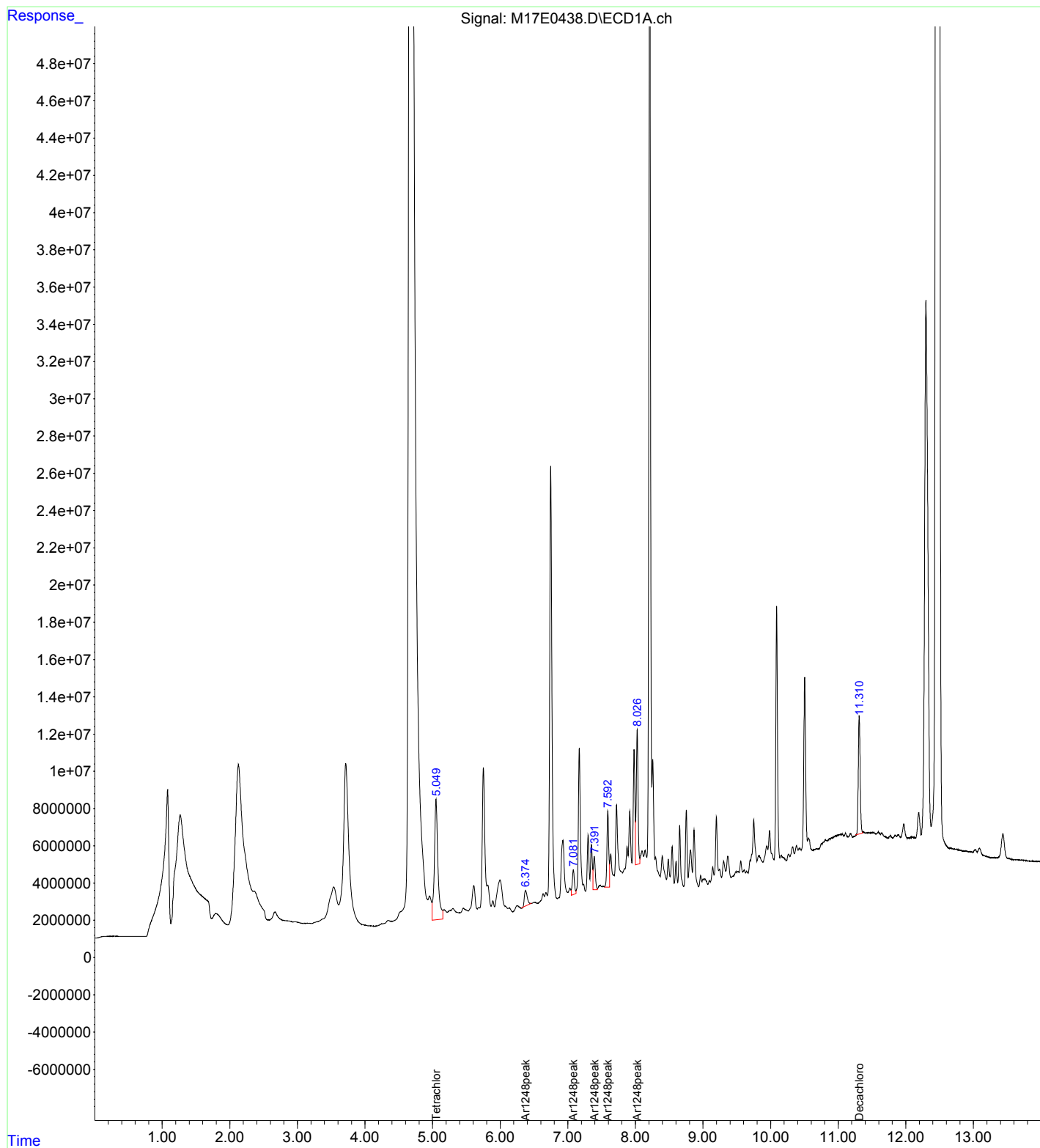
Quant Method : D:\MassHunter\GCMS\1\methods\M1248.M

Quant Title : *8/10/14-ECD#4-COLM-CLP2-1248

QLast Update : Fri Dec 02 09:57:05 2016

Response via : Continuing Cal File: D:\MassHunter\Data\M113016\M113043.D

DataAcq Meth:ECD4.M



Section C:
GC Semivolatiles
SW-846 8082
QC Sample Raw Data

Data File : D:\MassHunter\Data\M17E03\M17E0340.D Vial: 37
Acq On : 03 May 2017 08:02 pm Operator: ALS
Sample : B102163-BLK1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 04 09:06:57 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1) S Tetrachloro-m-xylene	5.039	193011405	0.017	ug/mL
2) S Decachlorobiphenyl	11.284	180877855	0.020	ug/mLm3
Target Compounds				
3) AR1016peak1	0.000	0	N.D.	ug/mL
4) AR1016peak2	6.393	2673229	N.D.	ug/mL
5) AR1016peak3	0.000	0	N.D.	ug/mL
6) AR1016peak4	0.000	0	N.D.	ug/mL
7) AR1016peak5	0.000	0	N.D.	ug/mL
8) AR1260peak1	0.000	0	N.D.	ug/mLd
9) AR1260peak2	0.000	0	N.D.	ug/mLd
10) AR1260peak3	0.000	0	N.D.	ug/mLd
11) AR1260peak4	0.000	0	N.D.	ug/mLd
12) AR1260peak5	0.000	0	N.D.	ug/mLd

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E03\M17E0340.D

Vial: 37

Acq On : 03 May 2017 08:02 pm

Operator: ALS

Sample : B102163-BLK1

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 04 09:06:57 2017

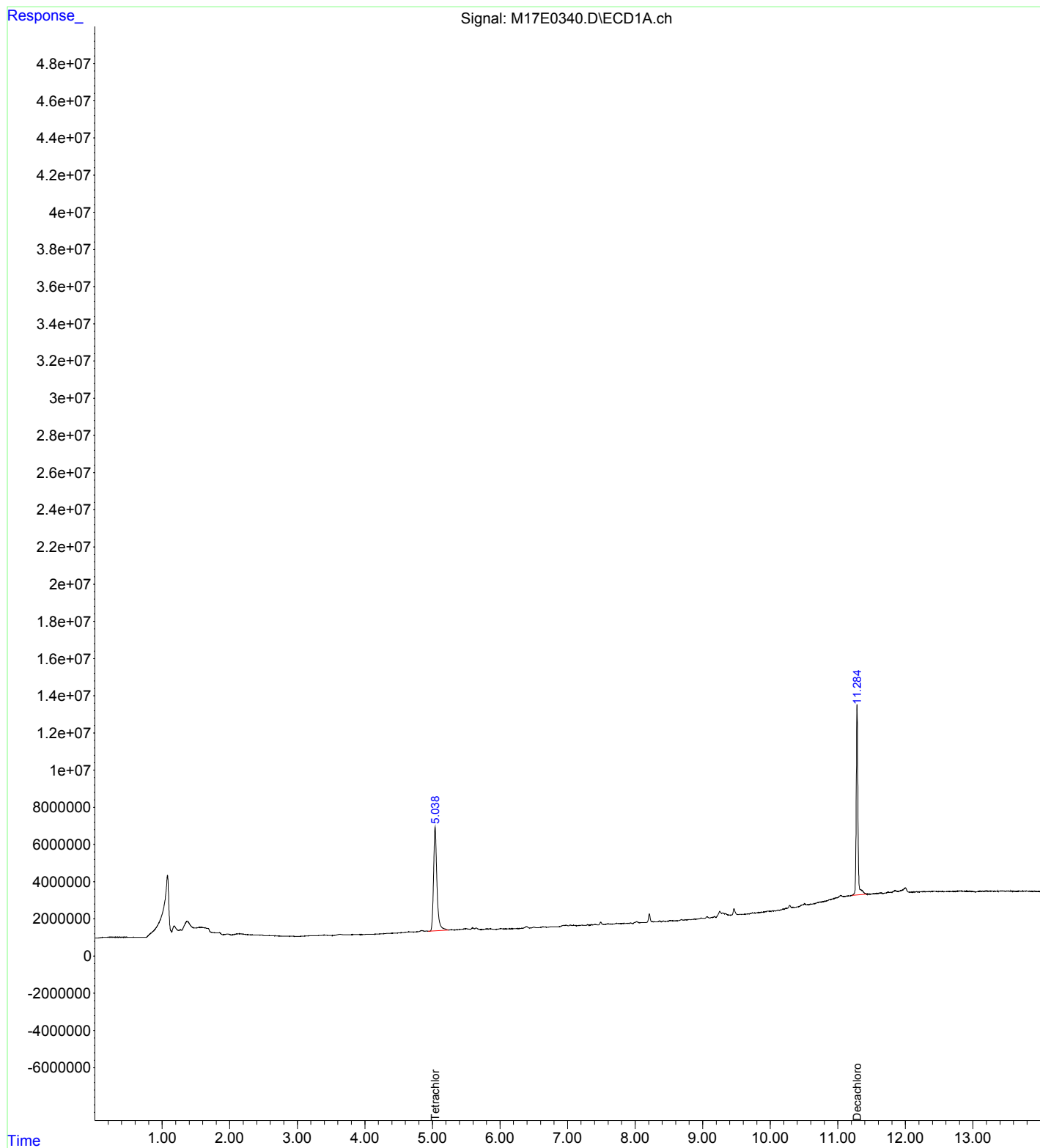
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E03\M17E0341.D Vial: 38
Acq On : 03 May 2017 08:19 pm Operator: ALS
Sample : B102163-BS1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 04 09:07:14 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.037	192977731	0.017 ug/mL
2) S Decachlorobiphenyl	11.285	175184484	0.019 ug/mLm3
Target Compounds			
3) AR1016peak1	5.824	83280947	0.468 ug/mL
4) AR1016peak2	6.368	173572378	0.487 ug/mL
5) AR1016peak3	6.931	386434765	0.465 ug/mL
6) AR1016peak4	7.086	166575855	0.511 ug/mL
7) AR1016peak5	7.719	153130503	0.539 ug/mLm3
8) AR1260peak1	9.018	301623721	0.491 ug/mL
9) AR1260peak2	9.480	117539619	0.511 ug/mL
10) AR1260peak3	9.701	222271968	0.454 ug/mL
11) AR1260peak4	10.251	454379393	0.452 ug/mL
12) AR1260peak5	10.752	117750692	0.460 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E03\M17E0341.D

Vial: 38

Acq On : 03 May 2017 08:19 pm

Operator: ALS

Sample : B102163-BS1

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 04 09:07:14 2017

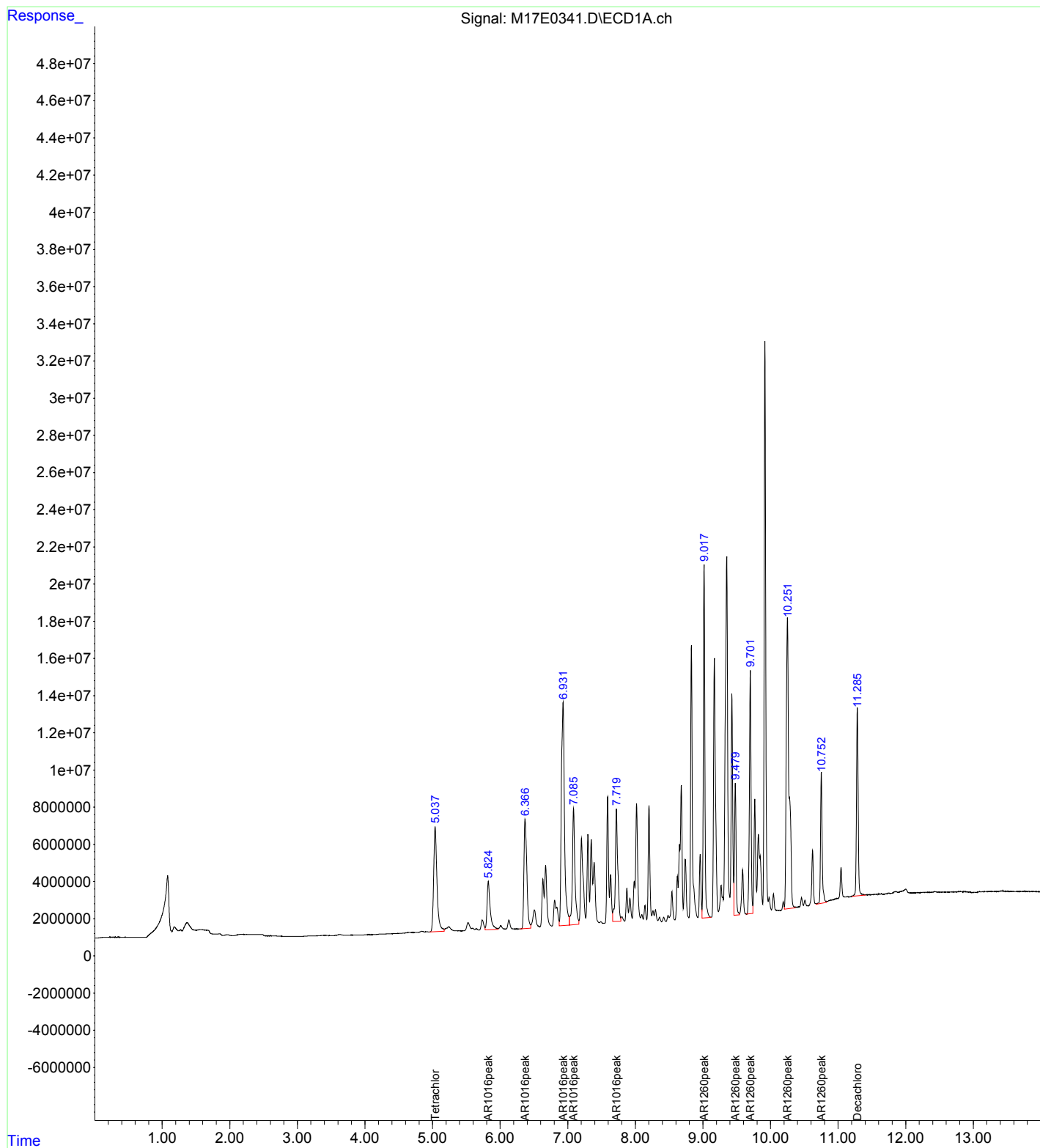
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E03\M17E0342.D Vial: 39
Acq On : 03 May 2017 08:36 pm Operator: ALS
Sample : B102163-BSD1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 04 09:07:31 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.037	195019296	0.017 ug/mL
2) S Decachlorobiphenyl	11.284	175470597	0.019 ug/mLm3
Target Compounds			
3) AR1016peak1	5.824	82754980	0.465 ug/mL
4) AR1016peak2	6.367	173341489	0.486 ug/mL
5) AR1016peak3	6.931	390945098	0.471 ug/mL
6) AR1016peak4	7.085	166686679	0.511 ug/mLm3
7) AR1016peak5	7.719	154444959	0.544 ug/mLm3
8) AR1260peak1	9.017	302437669	0.492 ug/mL
9) AR1260peak2	9.480	116926508	0.508 ug/mL
10) AR1260peak3	9.701	222247371	0.454 ug/mL
11) AR1260peak4	10.251	457449920	0.455 ug/mL
12) AR1260peak5	10.752	118110602	0.462 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E03\M17E0342.D

Vial: 39

Acq On : 03 May 2017 08:36 pm

Operator: ALS

Sample : B102163-BSD1

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 04 09:07:31 2017

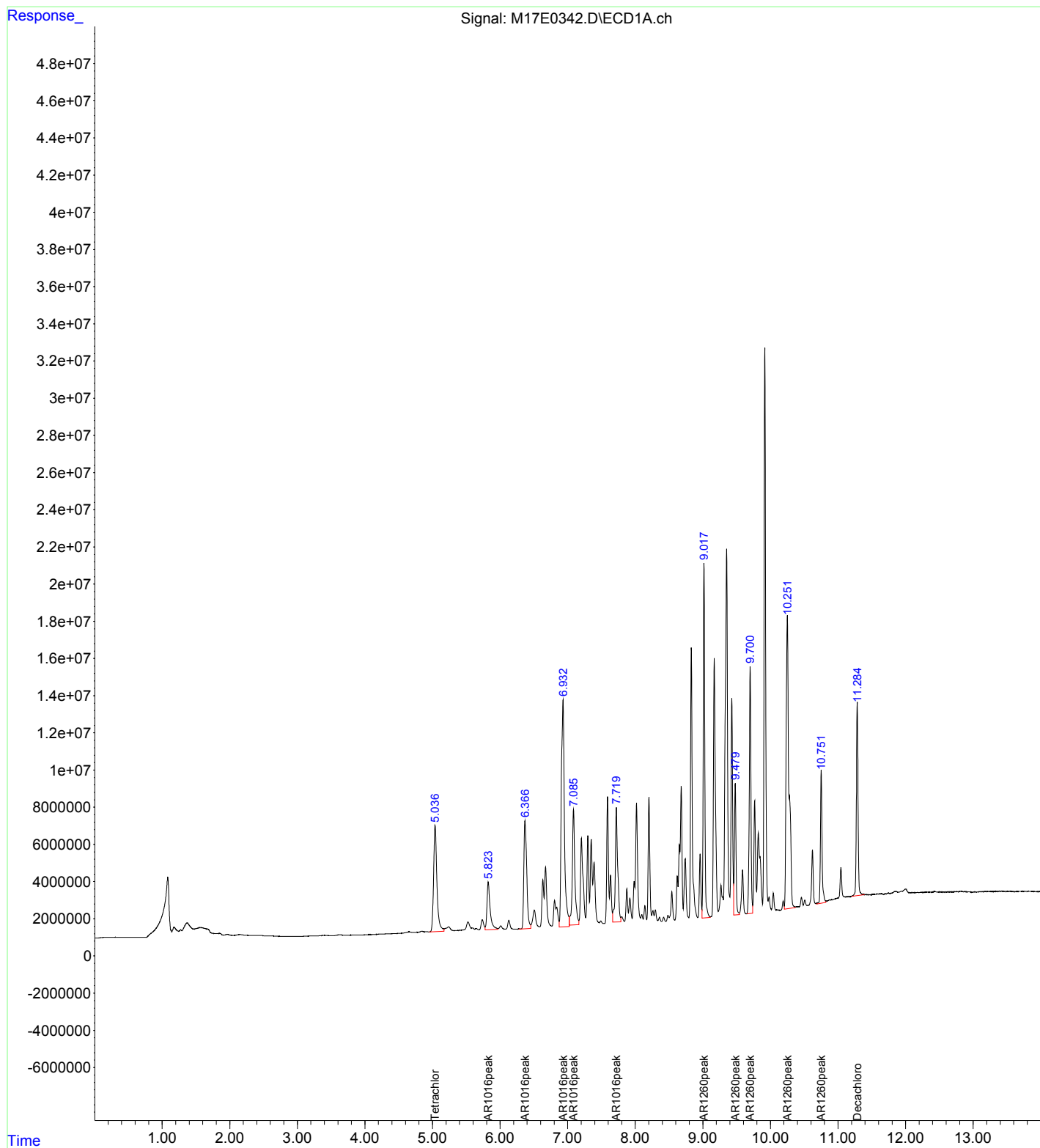
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0419.D Vial: 17
Acq On : 04 May 2017 02:14 pm Operator: ALS
Sample : B102186-BLK1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 08:09:36 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1) S Tetrachloro-m-xylene	5.031	187126208	0.016	ug/mL
2) S Decachlorobiphenyl	11.283	157735617	0.017	ug/mLm3
Target Compounds				
3) AR1016peak1	5.798	3690906	N.D.	ug/mL
4) AR1016peak2	6.322	2084534	N.D.	ug/mL
5) AR1016peak3	0.000	0	N.D.	ug/mLd
6) AR1016peak4	0.000	0	N.D.	ug/mLd
7) AR1016peak5	0.000	0	N.D.	ug/mLd
8) AR1260peak1	0.000	0	N.D.	ug/mLd
9) AR1260peak2	0.000	0	N.D.	ug/mLd
10) AR1260peak3	0.000	0	N.D.	ug/mLd
11) AR1260peak4	0.000	0	N.D.	ug/mLd
12) AR1260peak5	0.000	0	N.D.	ug/mLd

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0419.D

Vial: 17

Acq On : 04 May 2017 02:14 pm

Operator: ALS

Sample : B102186-BLK1

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 08:09:36 2017

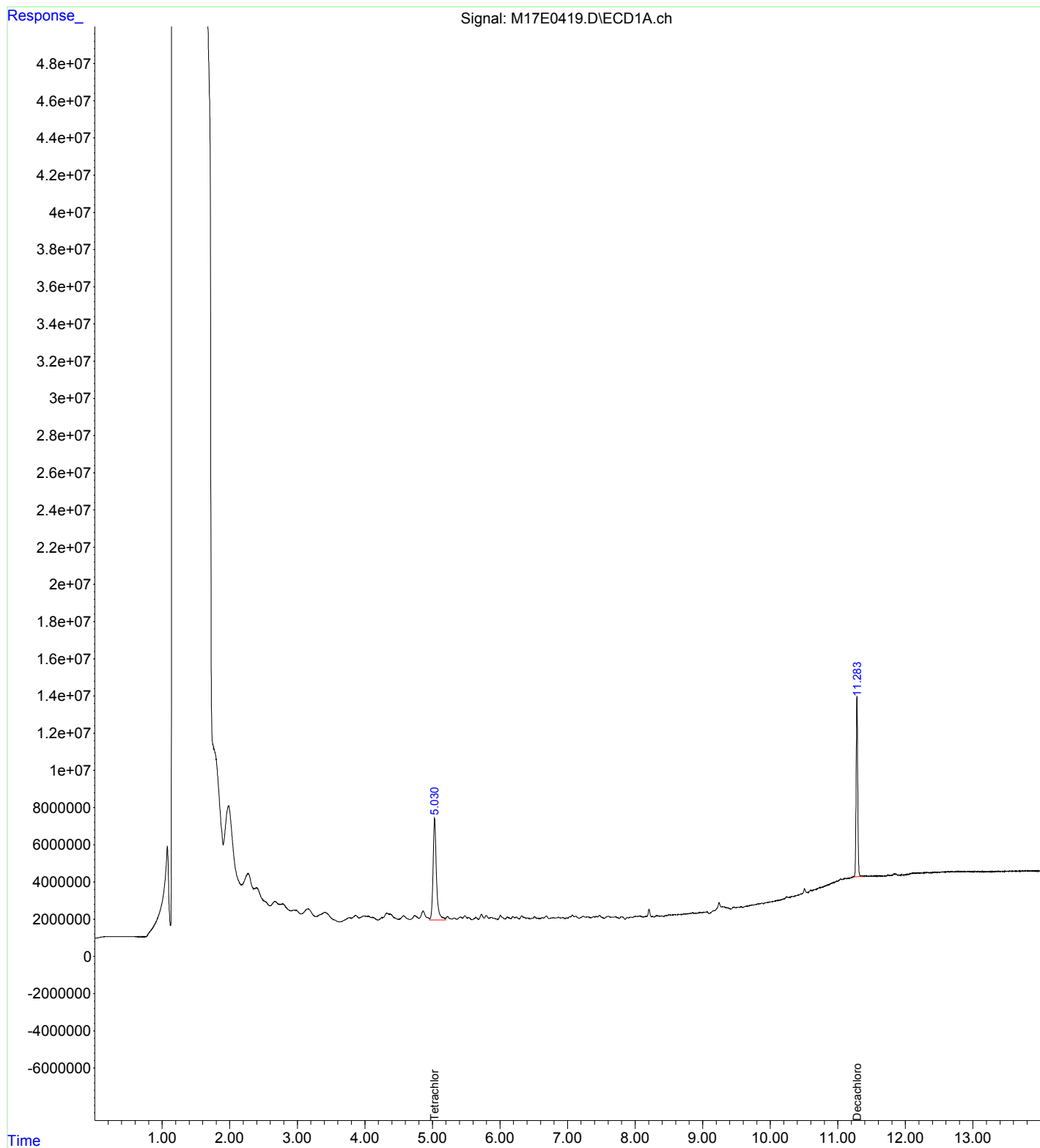
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0420.D Vial: 18
Acq On : 04 May 2017 02:31 pm Operator: ALS
Sample : B102186-BS1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 08:09:53 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.032	132169751	0.012 ug/mLm3
2) S Decachlorobiphenyl	11.282	116948322	0.013 ug/mLm3
Target Compounds			
3) AR1016peak1	5.814	58204079	0.320 ug/mLm3
4) AR1016peak2	6.363	105556779	0.293 ug/mLm3
5) AR1016peak3	6.925	227393331	0.274 ug/mLm3
6) AR1016peak4	7.080	99381769	0.302 ug/mLm3
7) AR1016peak5	7.715	81191246	0.284 ug/mL
8) AR1260peak1	9.014	170865876	0.275 ug/mL
9) AR1260peak2	9.477	61704987	0.272 ug/mL
10) AR1260peak3	9.698	124518677	0.256 ug/mL
11) AR1260peak4	10.248	260847845	0.259 ug/mL
12) AR1260peak5	10.749	71917339	0.288 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0420.D

Vial: 18

Acq On : 04 May 2017 02:31 pm

Operator: ALS

Sample : B102186-BS1

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 08:09:53 2017

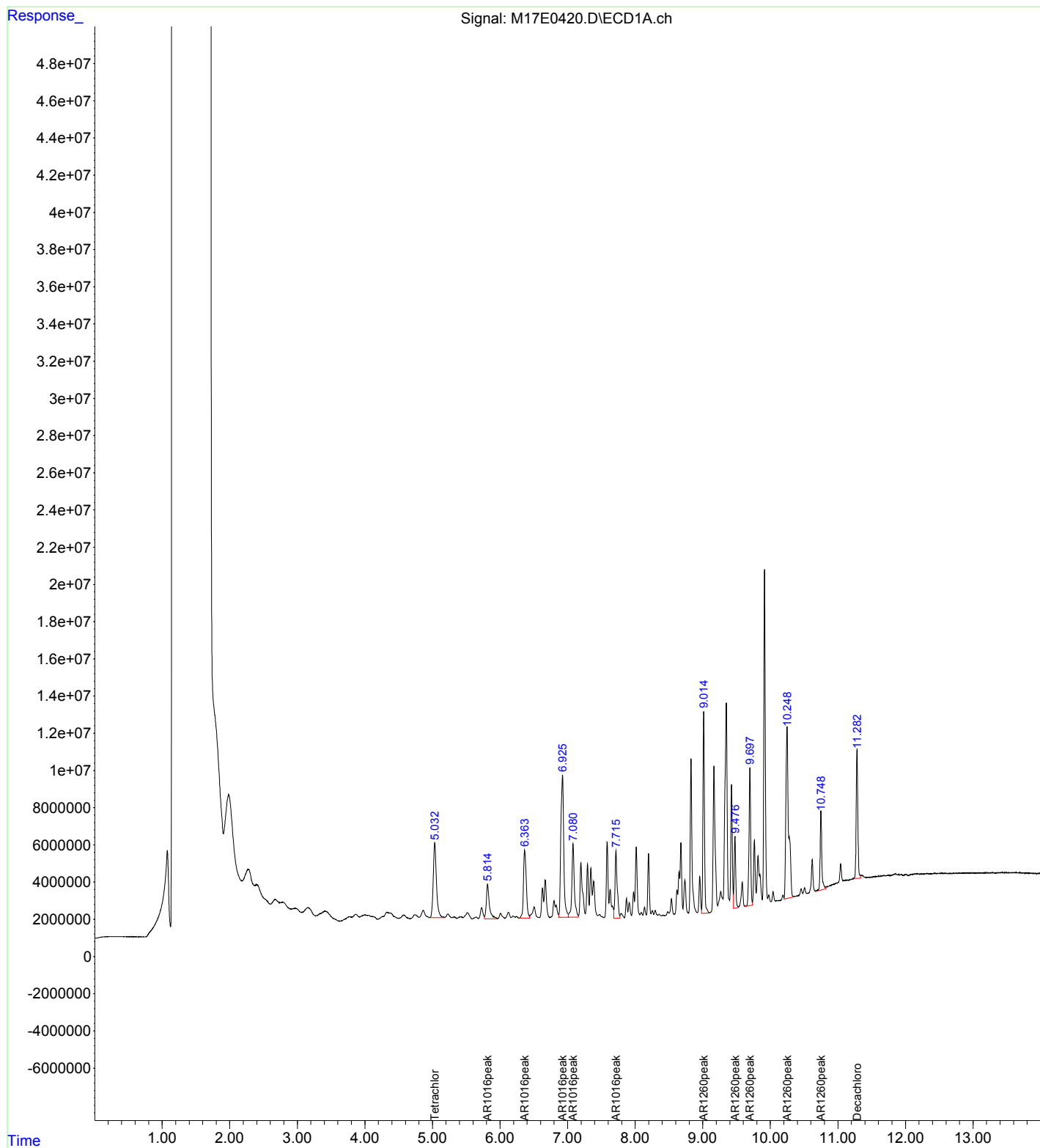
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0421.D Vial: 19
Acq On : 04 May 2017 02:49 pm Operator: ALS
Sample : B102186-BSD1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 08:10:10 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.033	150750474	0.013 ug/mL
2) S Decachlorobiphenyl	11.283	128756650	0.014 ug/mLm3
Target Compounds			
3) AR1016peak1	5.815	64611238	0.358 ug/mL
4) AR1016peak2	6.364	118497727	0.330 ug/mL
5) AR1016peak3	6.925	255222623	0.307 ug/mL
6) AR1016peak4	7.080	115701166	0.353 ug/mL
7) AR1016peak5	7.715	88249107	0.309 ug/mL
8) AR1260peak1	9.015	185749031	0.300 ug/mL
9) AR1260peak2	9.478	67179227	0.295 ug/mL
10) AR1260peak3	9.699	135924715	0.279 ug/mL
11) AR1260peak4	10.248	287893163	0.286 ug/mL
12) AR1260peak5	10.749	73647806	0.295 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0421.D

Vial: 19

Acq On : 04 May 2017 02:49 pm

Operator: ALS

Sample : B102186-BSD1

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 08:10:10 2017

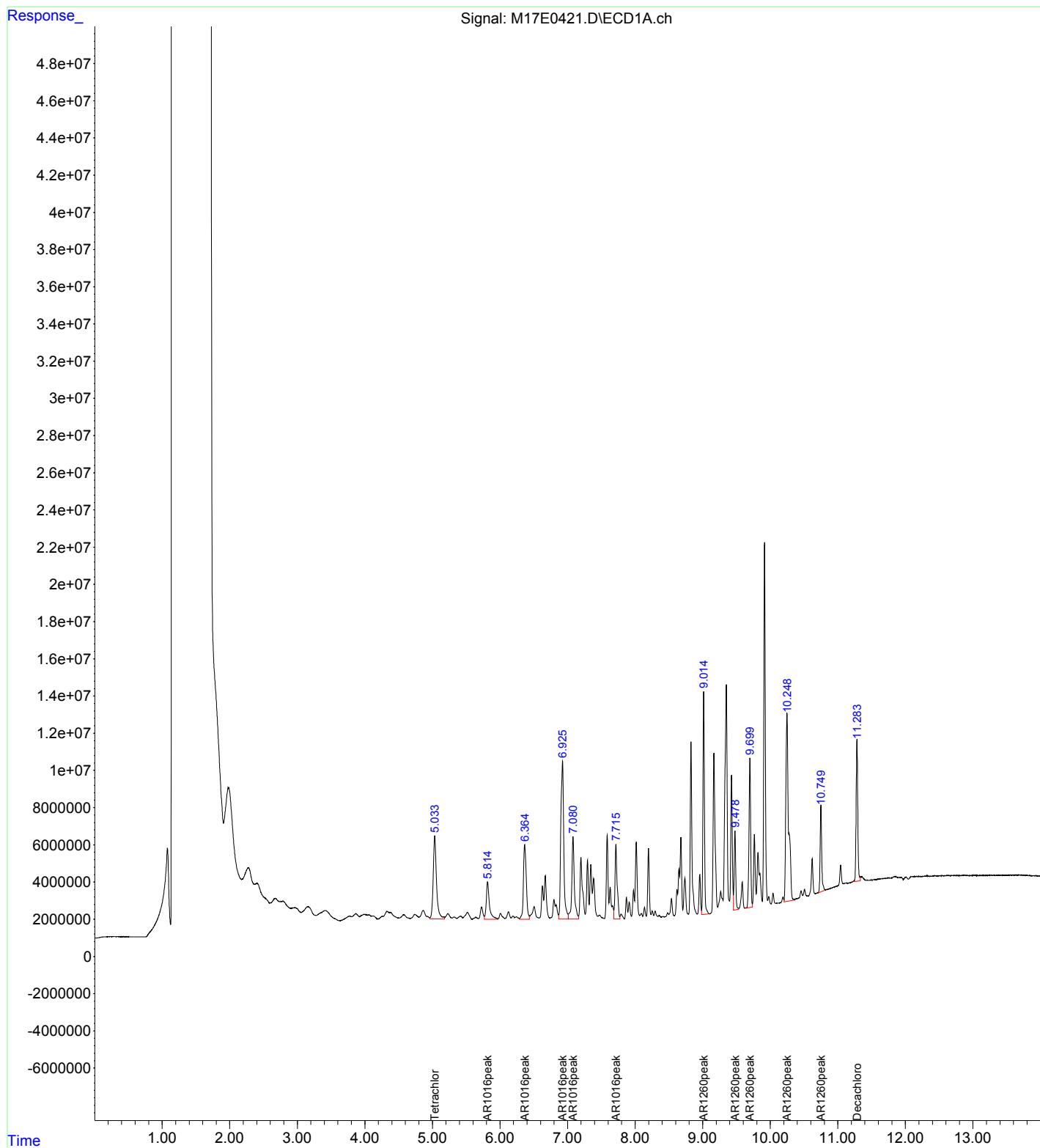
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0432.D Vial: 27
Acq On : 04 May 2017 06:00 pm Operator: ALS
Sample : B102245-BLK1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 08:12:20 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
1) S Tetrachloro-m-xylene	5.034	235906538	0.021	ug/mL
2) S Decachlorobiphenyl	11.282	170488173	0.019	ug/mLm3
Target Compounds				
3) AR1016peak1	5.794	2438704	N.D.	ug/mL
4) AR1016peak2	0.000	0	N.D.	ug/mL
5) AR1016peak3	0.000	0	N.D.	ug/mL
6) AR1016peak4	0.000	0	N.D.	ug/mL
7) AR1016peak5	0.000	0	N.D.	ug/mLd
8) AR1260peak1	0.000	0	N.D.	ug/mLd
9) AR1260peak2	0.000	0	N.D.	ug/mLd
10) AR1260peak3	0.000	0	N.D.	ug/mLd
11) AR1260peak4	0.000	0	N.D.	ug/mLd
12) AR1260peak5	0.000	0	N.D.	ug/mLd

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0432.D

Vial: 27

Acq On : 04 May 2017 06:00 pm

Operator: ALS

Sample : B102245-BLK1

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 08:12:20 2017

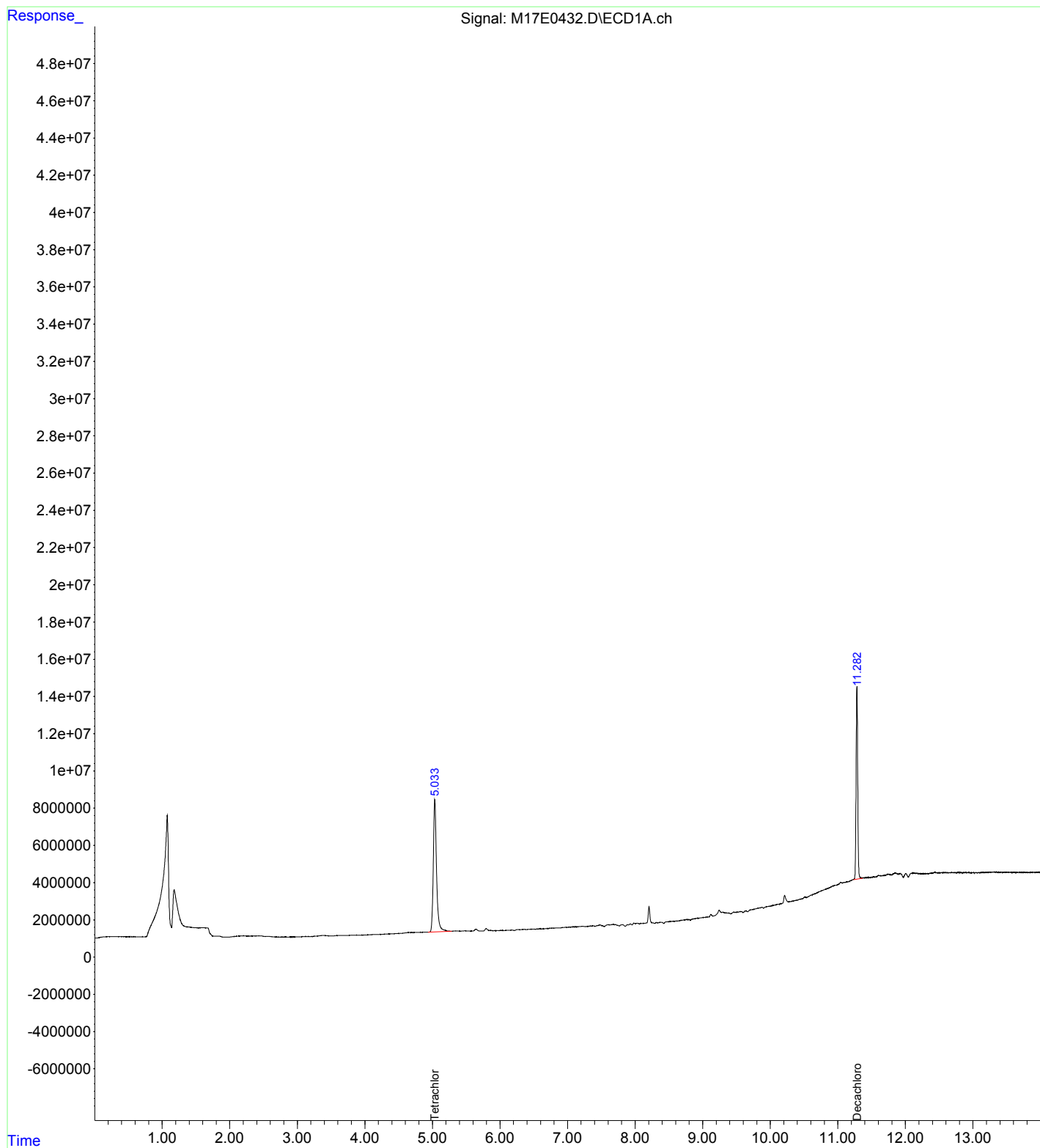
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0433.D Vial: 28
Acq On : 04 May 2017 06:18 pm Operator: ALS
Sample : B102245-BS1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 08:12:37 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.033	237189581	0.021 ug/mL
2) S Decachlorobiphenyl	11.282	184327617	0.020 ug/mLm3
Target Compounds			
3) AR1016peak1	5.816	96366635	0.546 ug/mL
4) AR1016peak2	6.364	182933570	0.514 ug/mL
5) AR1016peak3	6.925	414832491	0.499 ug/mL
6) AR1016peak4	7.080	169847110	0.521 ug/mL
7) AR1016peak5	7.716	150117377	0.529 ug/mL
8) AR1260peak1	9.015	298301064	0.486 ug/mL
9) AR1260peak2	9.477	115857492	0.504 ug/mL
10) AR1260peak3	9.699	234540448	0.479 ug/mL
11) AR1260peak4	10.247	504032379	0.502 ug/mL
12) AR1260peak5	10.749	140041524	0.544 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0433.D

Vial: 28

Acq On : 04 May 2017 06:18 pm

Operator: ALS

Sample : B102245-BS1

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 08:12:37 2017

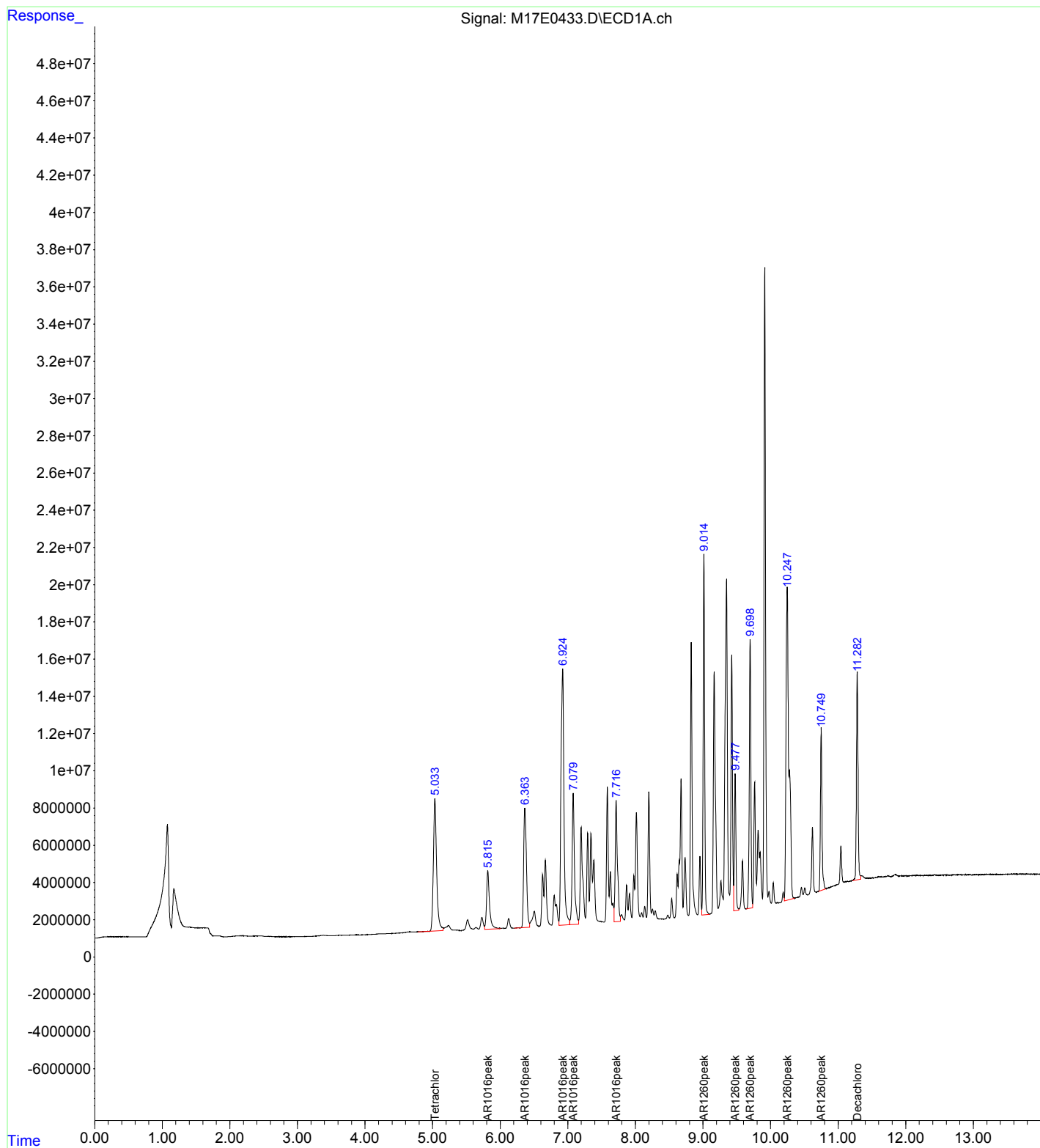
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17E04\M17E0434.D Vial: 29
Acq On : 04 May 2017 06:35 pm Operator: ALS
Sample : B102245-BSD1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 05 08:12:54 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.041	236848585	0.021 ug/mL
2) S Decachlorobiphenyl	11.282	180933259	0.020 ug/mLm3
Target Compounds			
3) AR1016peak1	5.821	93989662	0.532 ug/mL
4) AR1016peak2	6.368	182560736	0.513 ug/mL
5) AR1016peak3	6.928	415019476	0.500 ug/mL
6) AR1016peak4	7.083	170995644	0.525 ug/mL
7) AR1016peak5	7.718	149899242	0.528 ug/mL
8) AR1260peak1	9.015	297421071	0.484 ug/mL
9) AR1260peak2	9.478	115602501	0.502 ug/mL
10) AR1260peak3	9.699	235505747	0.481 ug/mL
11) AR1260peak4	10.247	503717513	0.502 ug/mL
12) AR1260peak5	10.749	139981590	0.544 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0434.D

Vial: 29

Acq On : 04 May 2017 06:35 pm

Operator: ALS

Sample : B102245-BS01

Inst : ECD 4

Misc :

Multiplr: 1.00

Quant Time: May 05 08:12:54 2017

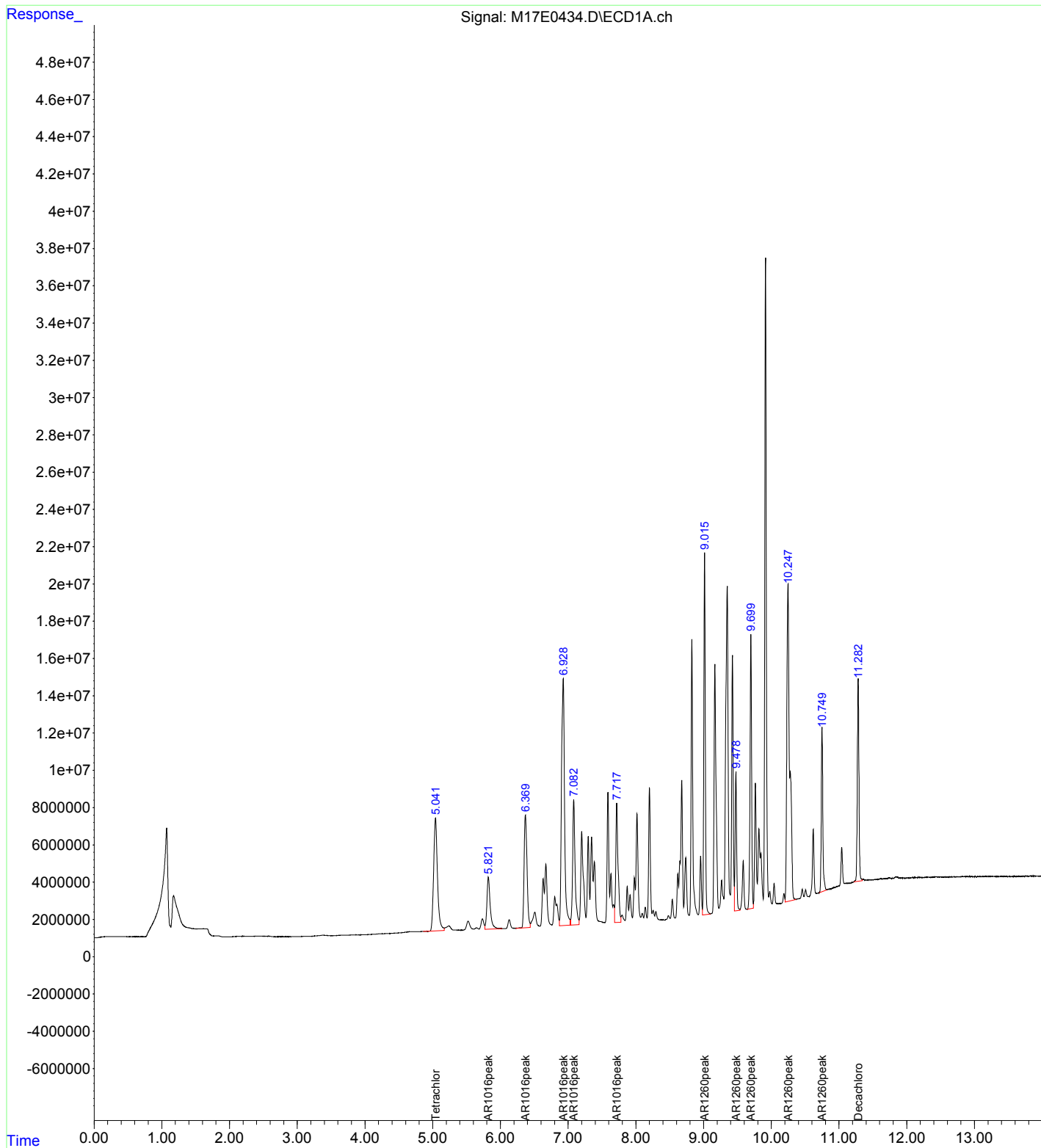
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Section D:
GC Semivolatiles
SW-846 8082
Calibration Raw Data

Method Path : D:\MassHunter\GCMS\1\methods\
Method File : MPCB0131.M
Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
Last Update : Wed Feb 01 08:47:57 2017
Response Via : Initial Calibration

Calibration Files

0.05=M17A3102.D 0.10=M17A3103.D 0.20=M17A3104.D 0.5 =M17A3105.D 1.0 =M17A3106.D 1.5 =M17A3107.D
2.0 =M17A3108.D

Compound	0.05	0.10	0.20	0.5	1.0	1.5	2.0	Avg	%RSD:r^2
1) Lin Tetrachloro-m...	10.822	10.578	10.357	11.558	11.572	11.743	11.632	11.180	E9 1.000
2) Lin Decachlorobiph...	8.396	8.567	8.469	9.006	9.078	9.313	8.970	8.828	E9 0.999
3) Lin AR1016peak1	2.651	2.005	1.765	1.781	1.723	1.793	1.669	1.913	E8 0.998
4) Lin AR1016peak2	3.538	3.645	3.504	3.593	3.527	3.682	3.436	3.561	E8 0.998
5) Lin AR1016peak3	7.954	7.954	7.870	8.279	8.287	8.714	8.087	8.163	E8 0.998
6) Lin AR1016peak4	3.487	3.192	3.102	3.282	3.236	3.399	3.142	3.263	E8 0.997
7) Lin AR1016peak5	3.149	2.640	2.780	2.833	2.802	2.969	2.755	2.847	E8 0.998
8) Lin AR1260peak1	6.106	6.343	5.964	6.042	6.038	6.538	5.851	6.126	E8 0.995
9) Lin AR1260peak2	2.275	2.036	2.167	2.304	2.301	2.375	2.303	2.252	E8 1.000
10) Lin AR1260peak3	4.443	4.476	4.541	4.977	4.983	4.987	4.871	4.754	E8 1.000
11) Lin AR1260peak4	1.204	1.007	0.883	1.026	1.025	0.992	1.001	1.020	E9 1.000
12) Lin AR1260peak5	1.917	2.180	2.097	2.711	2.765	2.408	2.724	2.400	E8 0.993

(#) = Out of Range

Data File : D:\MassHunter\Data\M17A31\M17A3102.D Vial: 1
Acq On : 31 Jan 2017 04:38 pm Operator: als
Sample : SEQ-CAL1 Inst : ECD 4
Misc : pcb 0.05 74808 Multiplr: 1.00
Quant Time: Feb 01 08:19:20 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

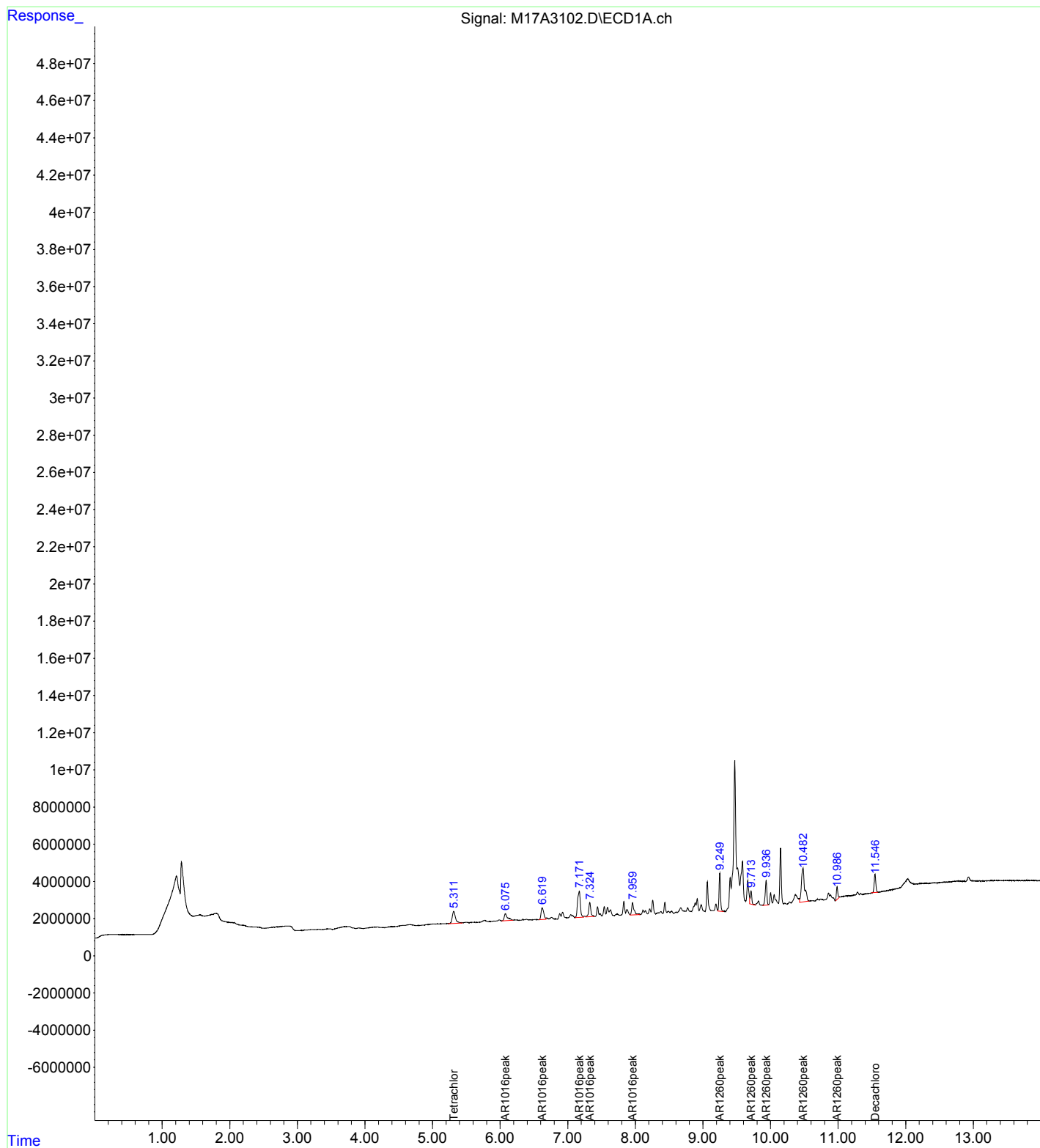
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.311	21643238	0.001 ug/mLm3
2) S Decachlorobiphenyl	11.546	16792032	0.002 ug/mLm3
Target Compounds			
3) AR1016peak1	6.077	13255069	0.029 ug/mL
4) AR1016peak2	6.619	17689001	0.026 ug/mLm3
5) AR1016peak3	7.171	39769204	0.037 ug/mL
6) AR1016peak4	7.324	17433894	0.037 ug/mLm3
7) AR1016peak5	7.959	15744441	0.035 ug/mL
8) AR1260peak1	9.250	30531769	0.047 ug/mL
9) AR1260peak2	9.713	11373226	0.045 ug/mLm3
10) AR1260peak3	9.935	22217456	0.031 ug/mLm3
11) AR1260peak4	10.482	60187663	0.030 ug/mL
12) AR1260peak5	10.986	9584099	0.041 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17A31\M17A3102.D Vial: 1
Acq On : 31 Jan 2017 04:38 pm Operator: als
Sample : SEQ-CAL1 Inst : ECD 4
Misc : pcb 0.05 74808 Multiplr: 1.00
Quant Time: Feb 01 08:19:20 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17A31\M17A3103.D Vial: 2
Acq On : 31 Jan 2017 04:56 pm Operator: als
Sample : SEQ-CAL2 Inst : ECD 4
Misc : pcb 0.1 74809 Multiplr: 1.00
Quant Time: Feb 01 08:19:37 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.316	42312596	0.003 ug/mL
2) S Decachlorobiphenyl	11.544	34267407	0.004 ug/mLm3
Target Compounds			
3) AR1016peak1	6.078	20052381	0.068 ug/mL
4) AR1016peak2	6.620	36452492	0.079 ug/mLm3
5) AR1016peak3	7.171	79544605	0.085 ug/mL
6) AR1016peak4	7.326	31915541	0.082 ug/mL
7) AR1016peak5	7.959	26401233	0.073 ug/mL
8) AR1260peak1	9.248	63428875	0.101 ug/mL
9) AR1260peak2	9.712	20362178	0.087 ug/mLm3
10) AR1260peak3	9.934	44759476	0.080 ug/mLm3
11) AR1260peak4	10.482	100746013	0.075 ug/mL
12) AR1260peak5	10.983	21803672	0.093 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17A31\M17A3103.D

Vial: 2

Acq On : 31 Jan 2017 04:56 pm

Operator: als

Sample : SEQ-CAL2

Inst : ECD 4

Misc : pcb 0.1 74809

Multiplr: 1.00

Quant Time: Feb 01 08:19:37 2017

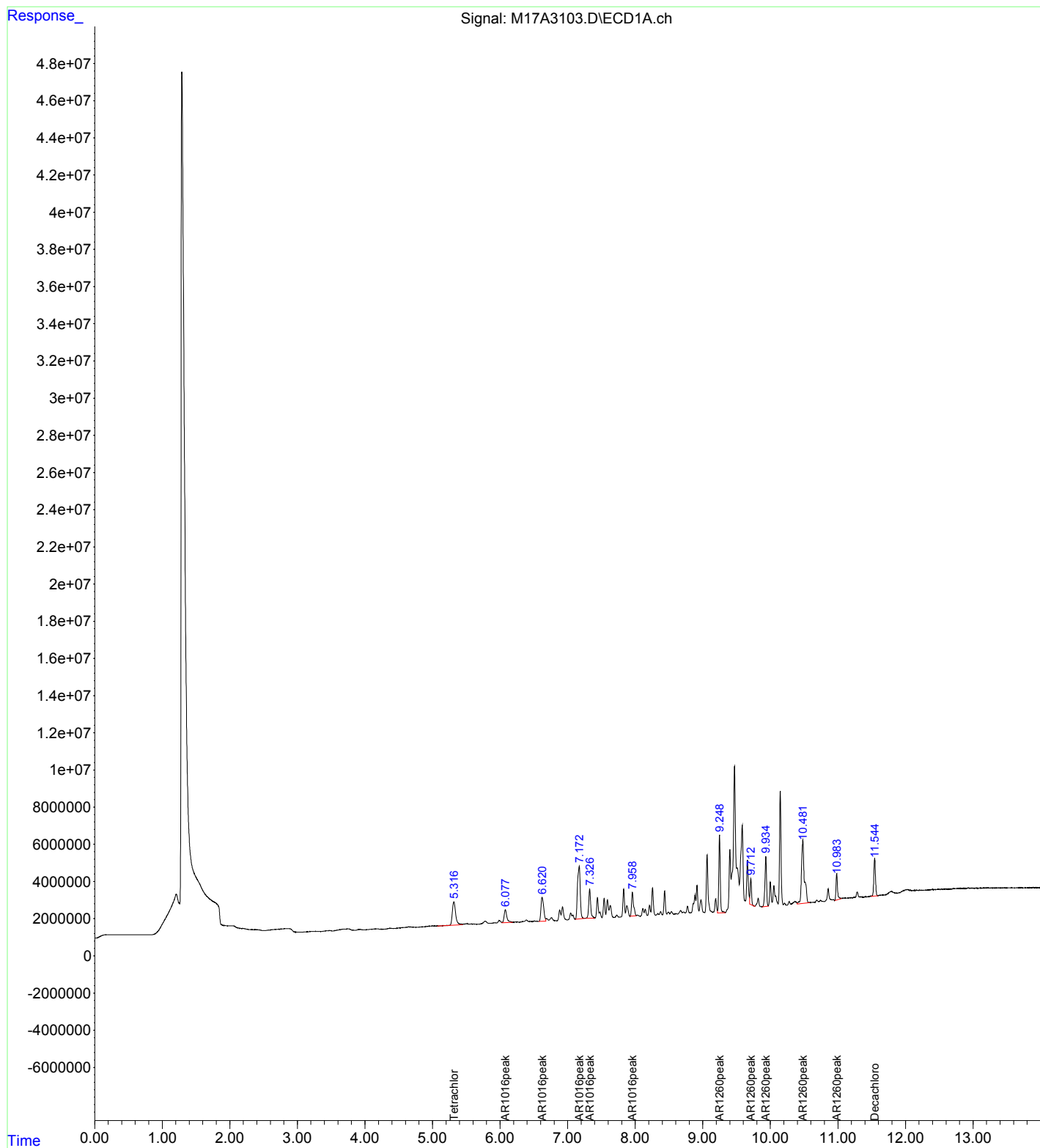
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Tue Jan 31 16:05:31 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17A31\M17A3104.D Vial: 3
Acq On : 31 Jan 2017 05:14 pm Operator: als
Sample : SEQ-CAL3 Inst : ECD 4
Misc : pcb 0.2 74810 Multiplr: 1.00
Quant Time: Feb 01 08:19:53 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.314	82855778	0.007 ug/mL
2) S Decachlorobiphenyl	11.544	67750895	0.008 ug/mL
Target Compounds			
3) AR1016peak1	6.077	35306853	0.157 ug/mL
4) AR1016peak2	6.620	70085285	0.173 ug/mL
5) AR1016peak3	7.171	157397819	0.178 ug/mLm3
6) AR1016peak4	7.325	62046442	0.175 ug/mLm3
7) AR1016peak5	7.957	55599713	0.178 ug/mL
8) AR1260peak1	9.248	119276285	0.193 ug/mL
9) AR1260peak2	9.711	43337017	0.195 ug/mLm3
10) AR1260peak3	9.933	90825253	0.180 ug/mL
11) AR1260peak4	10.482	176665980	0.158 ug/mLm3
12) AR1260peak5	10.982	41938631	0.179 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17A31\M17A3104.D

Vial: 3

Acq On : 31 Jan 2017 05:14 pm

Operator: als

Sample : SEQ-CAL3

Inst : ECD 4

Misc : pcb 0.2 74810

Multiplr: 1.00

Quant Time: Feb 01 08:19:53 2017

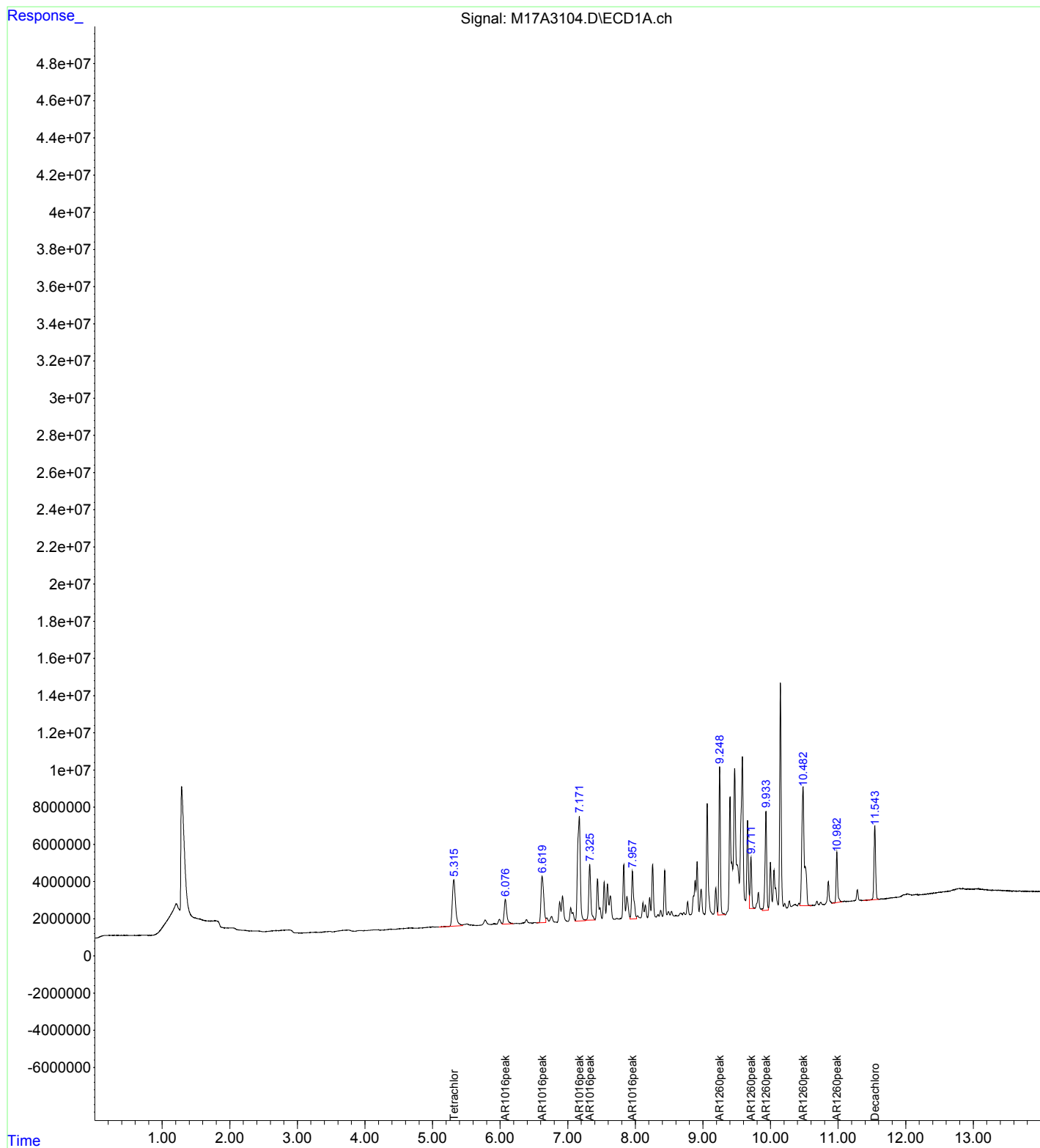
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Tue Jan 31 16:05:31 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17A31\M17A3105.D Vial: 4
Acq On : 31 Jan 2017 05:31 pm Operator: als
Sample : SEQ-CAL4 Inst : ECD 4
Misc : pcb 0.5 87655 Multiplr: 1.00
Quant Time: Feb 01 08:20:09 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.313	231161108	0.019 ug/mL
2) S Decachlorobiphenyl	11.543	180111411	0.021 ug/mL
Target Compounds			
3) AR1016peak1	6.075	89061152	0.470 ug/mL
4) AR1016peak2	6.620	179666560	0.482 ug/mL
5) AR1016peak3	7.170	413928229	0.486 ug/mL
6) AR1016peak4	7.324	164104604	0.490 ug/mL
7) AR1016peak5	7.957	141646034	0.486 ug/mL
8) AR1260peak1	9.248	302076174	0.494 ug/mL
9) AR1260peak2	9.711	115201910	0.532 ug/mLm3
10) AR1260peak3	9.933	248873220	0.524 ug/mL
11) AR1260peak4	10.481	513126493	0.530 ug/mL
12) AR1260peak5	10.982	135550158	0.578 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17A31\M17A3105.D

Vial: 4

Acq On : 31 Jan 2017 05:31 pm

Operator: als

Sample : SEQ-CAL4

Inst : ECD 4

Misc : pcb 0.5 87655

Multiplr: 1.00

Quant Time: Feb 01 08:20:09 2017

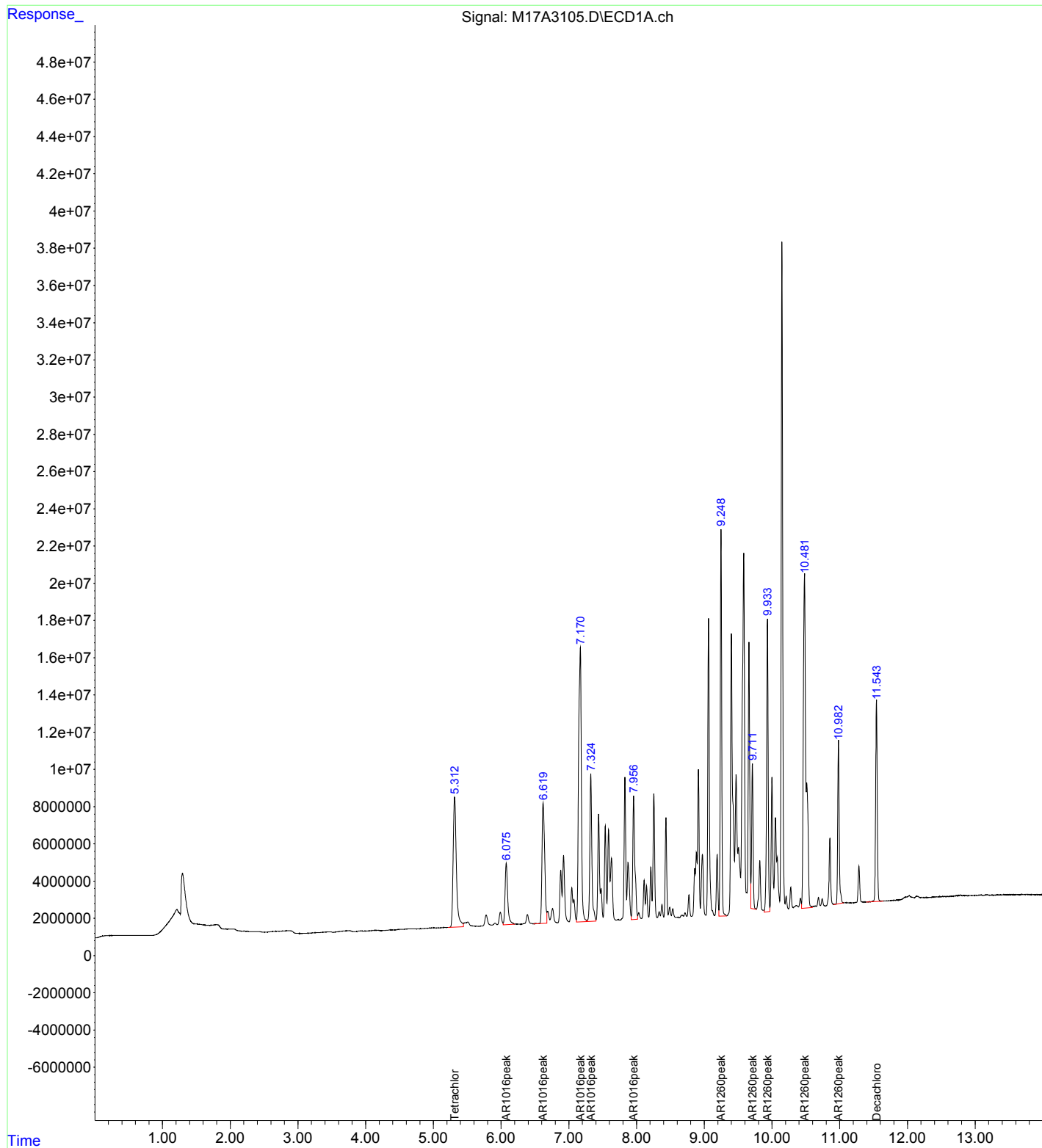
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Tue Jan 31 16:05:31 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17A31\M17A3106.D Vial: 5
Acq On : 31 Jan 2017 05:49 pm Operator: als
Sample : SEQ-CAL5 Inst : ECD 4
Misc : pcb 1.0 87707 Multiplr: 1.00
Quant Time: Feb 01 08:20:25 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.312	462882077	0.039 ug/mL
2) S Decachlorobiphenyl	11.544	363138077	0.042 ug/mL
Target Compounds			
3) AR1016peak1	6.075	172277564	0.955 ug/mL
4) AR1016peak2	6.619	352661554	0.969 ug/mL
5) AR1016peak3	7.169	828659101	0.983 ug/mL
6) AR1016peak4	7.324	323573984	0.983 ug/mL
7) AR1016peak5	7.957	280229750	0.984 ug/mL
8) AR1260peak1	9.247	603809786	0.990 ug/mL
9) AR1260peak2	9.711	230075166	1.070 ug/mLm3
10) AR1260peak3	9.933	498294613	1.067 ug/mL
11) AR1260peak4	10.482	1024524951	1.096 ug/mLm3
12) AR1260peak5	10.982	276528410	1.180 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17A31\M17A3106.D

Vial: 5

Acq On : 31 Jan 2017 05:49 pm

Operator: als

Sample : SEQ-CAL5

Inst : ECD 4

Misc : pcb 1.0 87707

Multiplr: 1.00

Quant Time: Feb 01 08:20:25 2017

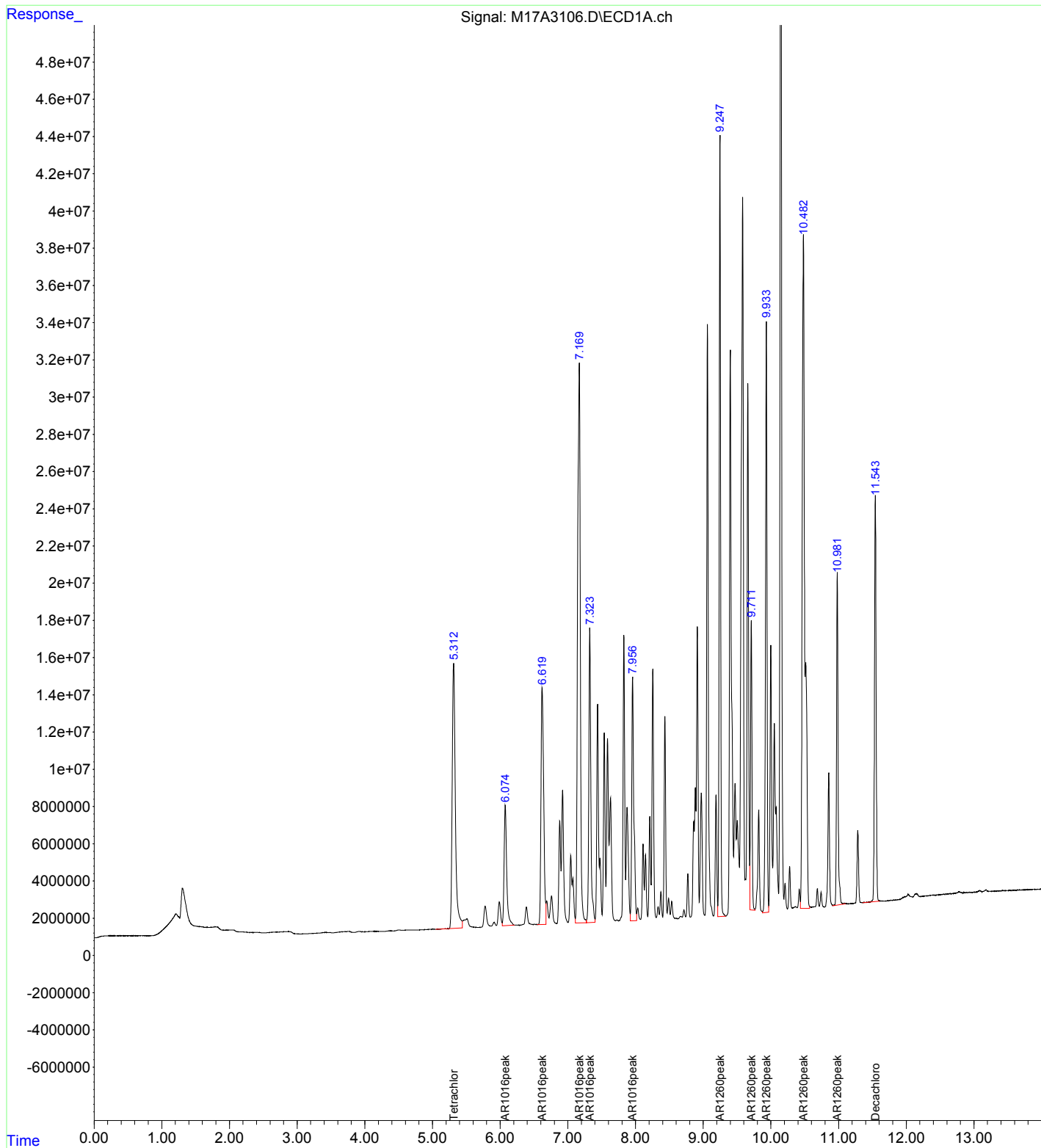
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Tue Jan 31 16:05:31 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17A31\M17A3107.D Vial: 6
Acq On : 31 Jan 2017 06:07 pm Operator: als
Sample : SEQ-CAL6 Inst : ECD 4
Misc : pcb 1.5 82319 Multiplr: 1.00
Quant Time: Feb 01 08:20:41 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.312	704577500	0.060 ug/mL
2) S Decachlorobiphenyl	11.543	558793520	0.065 ug/mL
Target Compounds			
3) AR1016peak1	6.074	268964634	1.518 ug/mL
4) AR1016peak2	6.619	552229910	1.531 ug/mL
5) AR1016peak3	7.170	1307025946	1.557 ug/mL
6) AR1016peak4	7.324	509865633	1.559 ug/mL
7) AR1016peak5	7.957	445294910	1.576 ug/mL
8) AR1260peak1	9.247	980705551	1.610 ug/mL
9) AR1260peak2	9.711	356248894	1.660 ug/mL
10) AR1260peak3	9.932	748122143	1.611 ug/mL
11) AR1260peak4	10.481	1488068716	1.608 ug/mL
12) AR1260peak5	10.981	361164740	1.541 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17A31\M17A3107.D

Vial: 6

Acq On : 31 Jan 2017 06:07 pm

Operator: als

Sample : SEQ-CAL6

Inst : ECD 4

Misc : pcb 1.5 82319

Multiplr: 1.00

Quant Time: Feb 01 08:20:41 2017

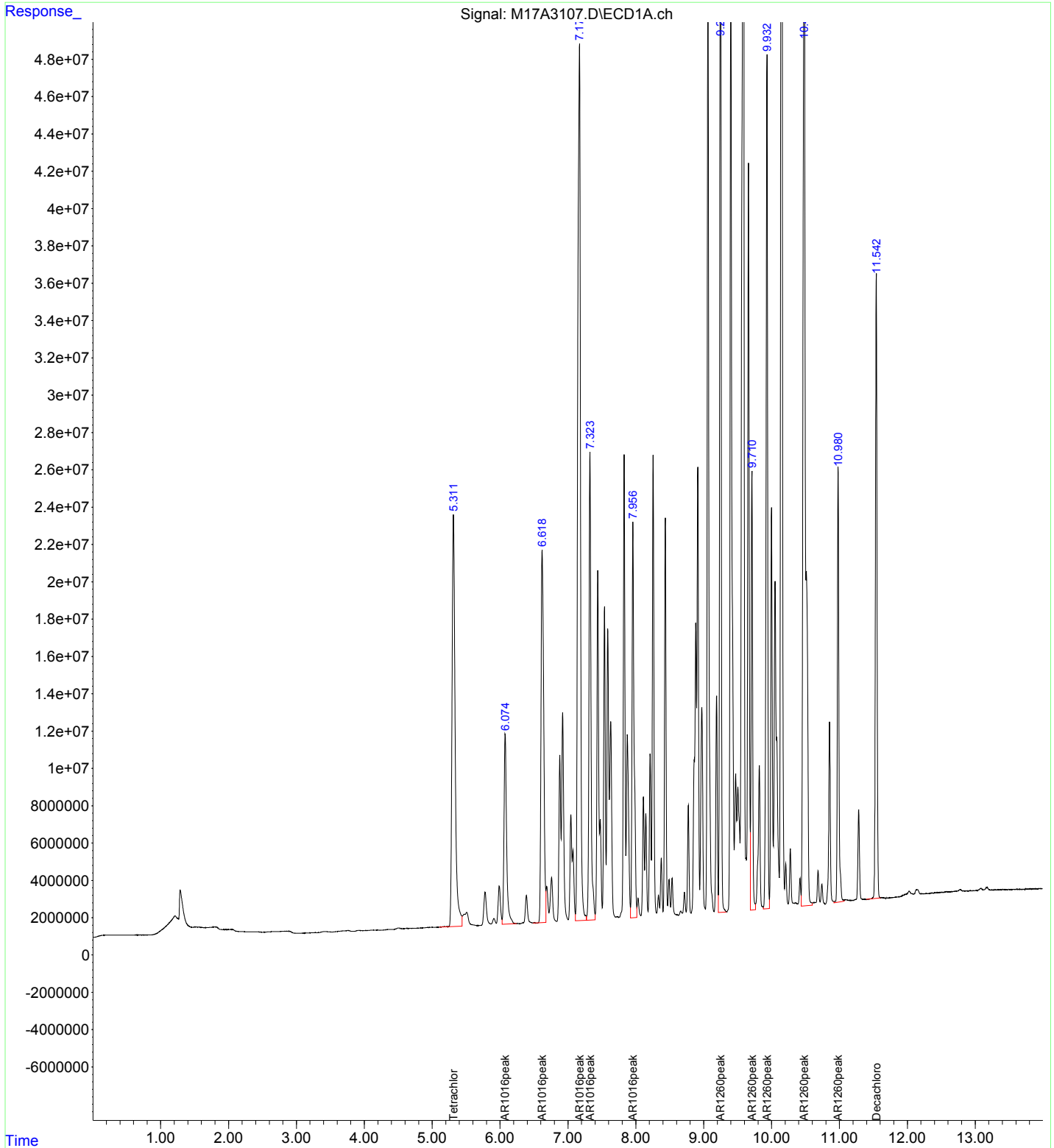
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Tue Jan 31 16:05:31 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17A31\M17A3108.D Vial: 7
Acq On : 31 Jan 2017 06:24 pm Operator: als
Sample : SEQ-CAL7 Inst : ECD 4
Misc : pcb 2.0 88003 Multiplr: 1.00
Quant Time: Feb 01 08:20:57 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.314	930530270	0.080 ug/mL
2) S Decachlorobiphenyl	11.543	717603867	0.084 ug/mL
Target Compounds			
3) AR1016peak1	6.076	333763358	1.895 ug/mL
4) AR1016peak2	6.620	687242048	1.911 ug/mL
5) AR1016peak3	7.170	1617321683	1.929 ug/mL
6) AR1016peak4	7.324	628420096	1.925 ug/mL
7) AR1016peak5	7.957	550945548	1.955 ug/mL
8) AR1260peak1	9.247	1170253971	1.921 ug/mL
9) AR1260peak2	9.711	460648207	2.149 ug/mL
10) AR1260peak3	9.933	974151673	2.103 ug/mL
11) AR1260peak4	10.480	2002335148	2.177 ug/mLm3
12) AR1260peak5	10.981	544807352	2.324 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17A31\M17A3108.D

Vial: 7

Acq On : 31 Jan 2017 06:24 pm

Operator: als

Sample : SEQ-CAL7

Inst : ECD 4

Misc : pcb 2.0 88003

Multiplr: 1.00

Quant Time: Feb 01 08:20:57 2017

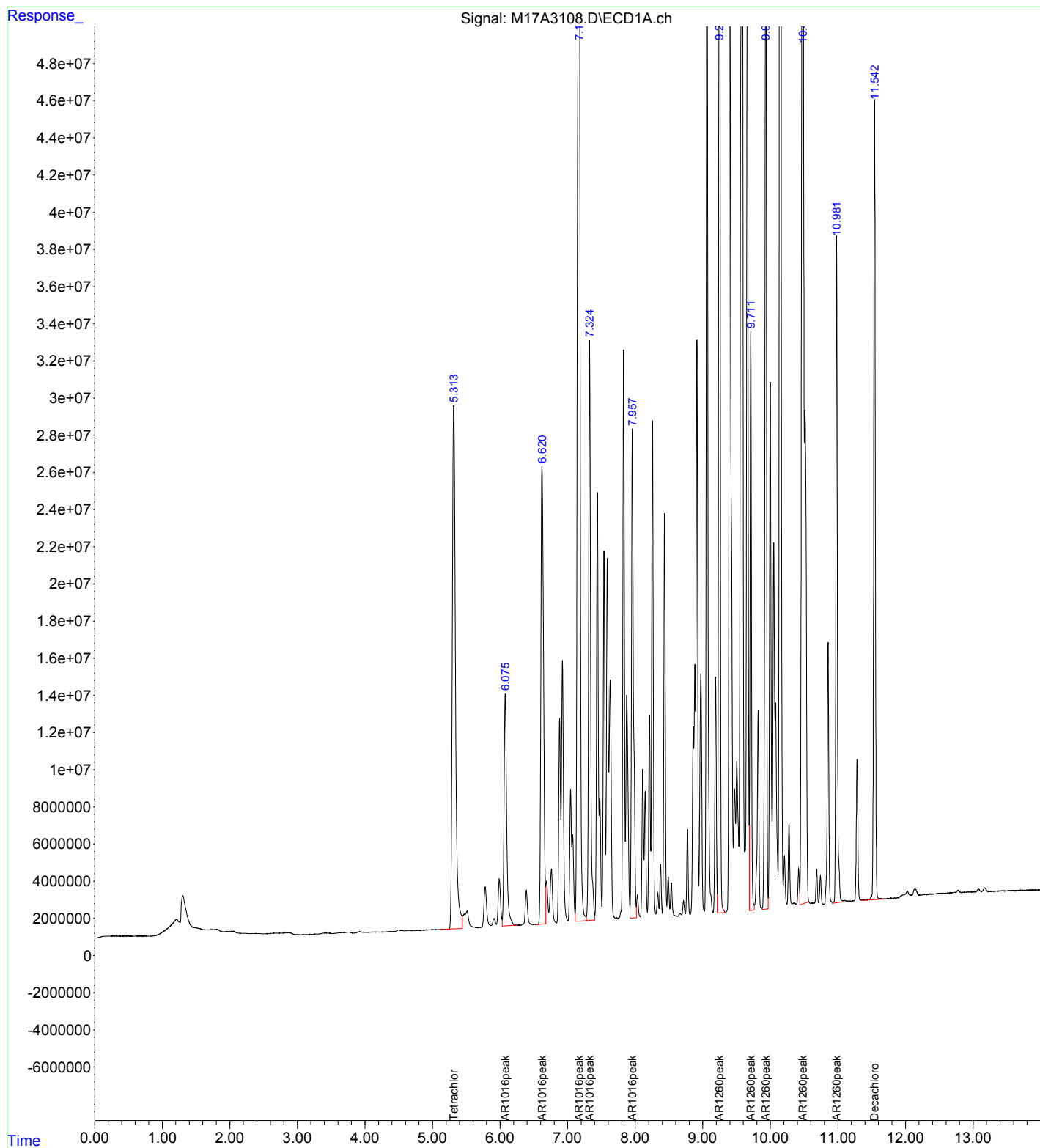
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Tue Jan 31 16:05:31 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Data File : D:\MassHunter\Data\M17A31\M17A3110.D Vial: 9
Acq On : 31 Jan 2017 07:00 pm Operator: als
Sample : SEQ-ICV1 Inst : ECD 4
Misc : pcb icv 87120 Multiplr: 1.00
Quant Time: Apr 11 07:33:39 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131LL.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-Low Level 8082/608
QLast Update : Tue Apr 11 07:32:22 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

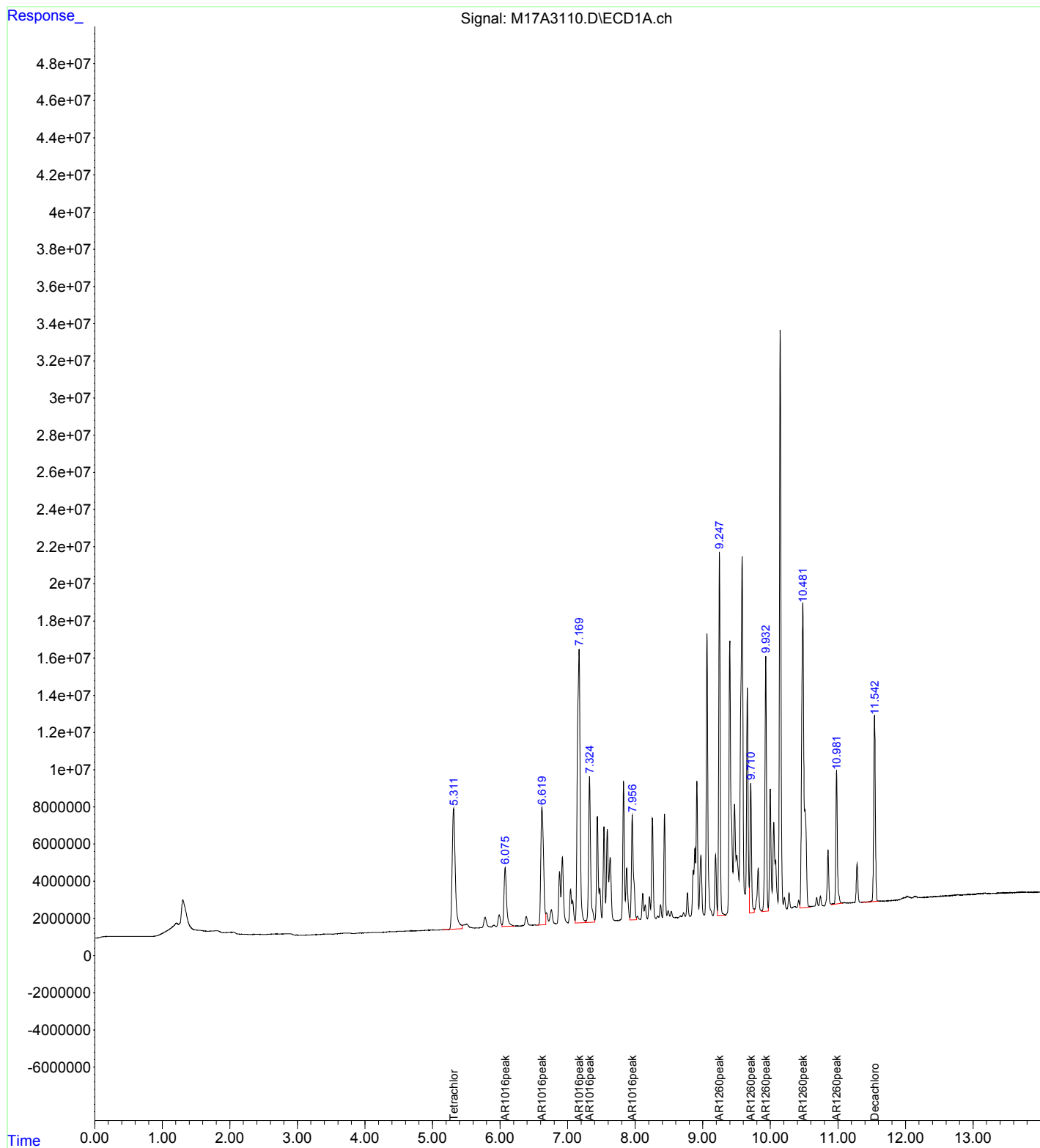
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.312	211391671	0.018 ug/mL
2) S Decachlorobiphenyl	11.543	168684763	0.019 ug/mL
Target Compounds			
3) AR1016peak1	6.075	84134353	0.476 ug/mL
4) AR1016peak2	6.620	179067686	0.503 ug/mL
5) AR1016peak3	7.169	412524336	0.496 ug/mL
6) AR1016peak4	7.324	162411092	0.498 ug/mL
7) AR1016peak5	7.957	120018647	0.422 ug/mL
8) AR1260peak1	9.247	285646061	0.465 ug/mL
9) AR1260peak2	9.711	109284059	0.473 ug/mL
10) AR1260peak3	9.933	221851162	0.453 ug/mL
11) AR1260peak4	10.481	441589725	0.439 ug/mL
12) AR1260peak5	10.982	112407842	0.437 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17A31\M17A3110.D Vial: 9
Acq On : 31 Jan 2017 07:00 pm Operator: als
Sample : SEQ-ICV1 Inst : ECD 4
Misc : pcb icv 87120 Multiplr: 1.00
Quant Time: Apr 11 07:33:39 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131LL.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-Low Level 8082/608
QLast Update : Tue Apr 11 07:32:22 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M



Section E:
GC Semivolatiles
SW-846 8082
Sequence QC Sample Raw Data

Evaluate Continuing Calibration Report

Data File : D:\MassHunter\Data\M17E03\M17E0334.D Vial: 31
Acq On : 03 May 2017 06:17 pm Operator: ALS
Sample : SEQ-CCV2 Inst : ECD 4
Misc : PCB 1.0 92785 Multiplr: 1.00
Quant Time: May 04 09:05:15 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1 S	Tetrachloro-m-xylene	0.040	0.040	0.0	100	-0.01
2 S	Decachlorobiphenyl	0.040	0.041	-2.5	103	-0.02
3	AR1016peak1	1.000	1.014	-1.4	102	-0.01
4	AR1016peak2	1.000	1.031	-3.1	103	-0.02
5	AR1016peak3	1.000	1.017	-1.7	102	-0.01
6	AR1016peak4	1.000	1.062	-6.2	106	-0.01
7	AR1016peak5	1.000	1.124	-12.4	113	-0.01
8	AR1260peak1	1.000	1.036	-3.6	105	-0.02
9	AR1260peak2	1.000	1.093	-9.3	110	-0.01
10	AR1260peak3	1.000	1.027	-2.7	101	-0.02
11	AR1260peak4	1.000	1.070	-7.0	105	-0.02
12	AR1260peak5	1.000	1.137	-13.7	108	-0.02

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : D:\MassHunter\Data\M17E03\M17E0334.D Vial: 31
 Acq On : 03 May 2017 06:17 pm Operator: ALS
 Sample : SEQ-CCV2 Inst : ECD 4
 Misc : PCB 1.0 92785 Multiplr: 1.00
 Quant Time: May 04 09:05:15 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.036	465121134	0.040 ug/mL
2) S Decachlorobiphenyl	11.284	373969145	0.041 ug/mLm3
Target Compounds			
3) AR1016peak1	5.821	175418458	1.014 ug/mL
4) AR1016peak2	6.366	364514671	1.031 ug/mL
5) AR1016peak3	6.928	844505750	1.017 ug/mL
6) AR1016peak4	7.085	344207326	1.062 ug/mL
7) AR1016peak5	7.719	318052389	1.124 ug/mL
8) AR1260peak1	9.017	631509509	1.036 ug/mL
9) AR1260peak2	9.480	253545496	1.093 ug/mL
10) AR1260peak3	9.701	504838149	1.027 ug/mL
11) AR1260peak4	10.249	1072438792	1.070 ug/mL
12) AR1260peak5	10.751	298120082	1.137 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E03\M17E0334.D

Vial: 31

Acq On : 03 May 2017 06:17 pm

Operator: ALS

Sample : SEQ-CCV2

Inst : ECD 4

Misc : PCB 1.0 92785

Multiplr: 1.00

Quant Time: May 04 09:05:15 2017

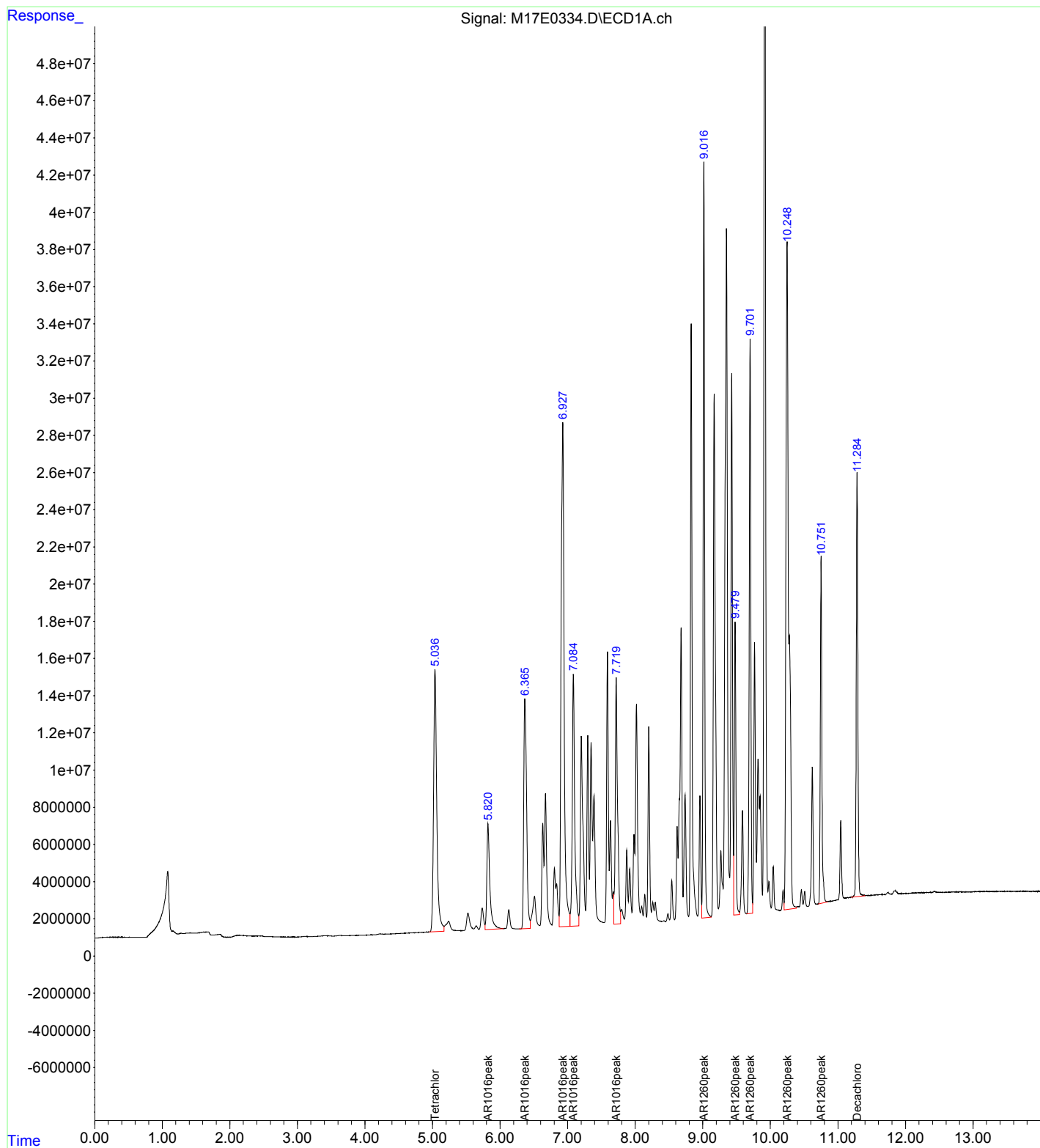
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Evaluate Continuing Calibration Report

Data File : D:\MassHunter\Data\M17E03\M17E0346.D Vial: 42
Acq On : 03 May 2017 09:46 pm Operator: ALS
Sample : SEQ-CCV3 Inst : ECD 4
Misc : PCB 0.5 92784 Multiplr: 1.00
Quant Time: May 04 09:08:23 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1 S	Tetrachloro-m-xylene	0.020	0.020	0.0	102	-0.01
2 S	Decachlorobiphenyl	0.020	0.020	0.0	100	-0.02
3	AR1016peak1	0.500	0.518	-3.6	103	-0.01
4	AR1016peak2	0.500	0.531	-6.2	105	-0.01
5	AR1016peak3	0.500	0.510	-2.0	102	-0.01
6	AR1016peak4	0.500	0.528	-5.6	105	-0.01
7	AR1016peak5	0.500	0.557	-11.4	112	-0.01
8	AR1260peak1	0.500	0.495	1.0	101	-0.01
9	AR1260peak2	0.500	0.541	-8.2	108	-0.01
10	AR1260peak3	0.500	0.486	2.8	96	-0.01
11	AR1260peak4	0.500	0.500	0.0	98	-0.02
12	AR1260peak5	0.500	0.547	-9.4	104	-0.02

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : D:\MassHunter\Data\M17E03\M17E0346.D Vial: 42
Acq On : 03 May 2017 09:46 pm Operator: ALS
Sample : SEQ-CCV3 Inst : ECD 4
Misc : PCB 0.5 92784 Multiplr: 1.00
Quant Time: May 04 09:08:23 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

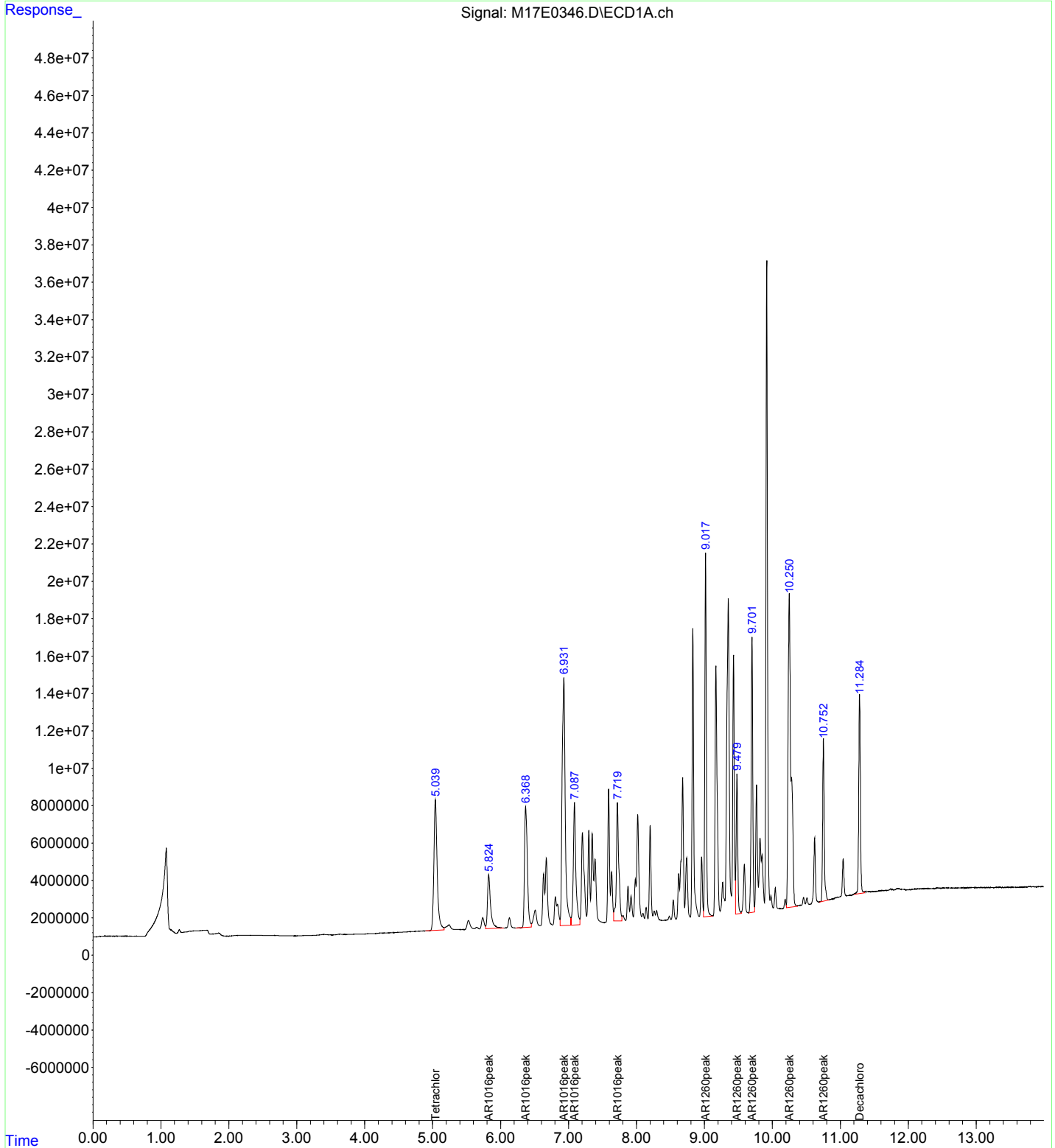
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.040	235240965	0.020 ug/mL
2) S Decachlorobiphenyl	11.284	179638782	0.020 ug/mLm3
Target Compounds			
3) AR1016peak1	5.824	91677170	0.518 ug/mL
4) AR1016peak2	6.368	189184731	0.531 ug/mL
5) AR1016peak3	6.931	423757219	0.510 ug/mL
6) AR1016peak4	7.087	171987490	0.528 ug/mL
7) AR1016peak5	7.719	158081808	0.557 ug/mLm3
8) AR1260peak1	9.018	304013296	0.495 ug/mL
9) AR1260peak2	9.480	124531258	0.541 ug/mL
10) AR1260peak3	9.701	237844515	0.486 ug/mL
11) AR1260peak4	10.250	502378842	0.500 ug/mL
12) AR1260peak5	10.752	140753496	0.547 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E03\M17E0346.D Vial: 42
Acq On : 03 May 2017 09:46 pm Operator: ALS
Sample : SEQ-CCV3 Inst : ECD 4
Misc : PCB 0.5 92784 Multiplr: 1.00
Quant Time: May 04 09:08:23 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M



Evaluate Continuing Calibration Report

Data File : D:\MassHunter\Data\M17E04\M17E0418.D Vial: 16
Acq On : 04 May 2017 01:56 pm Operator: ALS
Sample : SEQ-CCV9 Inst : ECD 4
Misc : PCB 1.0 92785 Multiplr: 1.00
Quant Time: May 05 08:09:20 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1 S	Tetrachloro-m-xylene	0.040	0.040	0.0	101	-0.02
2 S	Decachlorobiphenyl	0.040	0.039	2.5	98	-0.02
3	AR1016peak1	1.000	1.034	-3.4	104	-0.02
4	AR1016peak2	1.000	1.014	-1.4	102	-0.02
5	AR1016peak3	1.000	1.007	-0.7	101	-0.02
6	AR1016peak4	1.000	1.003	-0.3	100	-0.02
7	AR1016peak5	1.000	1.022	-2.2	103	-0.02
8	AR1260peak1	1.000	0.986	1.4	100	-0.02
9	AR1260peak2	1.000	1.014	-1.4	102	-0.02
10	AR1260peak3	1.000	0.964	3.6	95	-0.02
11	AR1260peak4	1.000	1.025	-2.5	100	-0.02
12	AR1260peak5	1.000	1.099	-9.9	104	-0.02

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : D:\MassHunter\Data\M17E04\M17E0418.D Vial: 16
Acq On : 04 May 2017 01:56 pm Operator: ALS
Sample : SEQ-CCV9 Inst : ECD 4
Misc : PCB 1.0 92785 Multiplr: 1.00
Quant Time: May 05 08:09:20 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.029	469199413	0.040 ug/mL
2) S Decachlorobiphenyl	11.283	355036707	0.039 ug/mLm3
Target Compounds			
3) AR1016peak1	5.813	178827966	1.034 ug/mL
4) AR1016peak2	6.362	358516414	1.014 ug/mL
5) AR1016peak3	6.922	836610442	1.007 ug/mL
6) AR1016peak4	7.078	325086494	1.003 ug/mL
7) AR1016peak5	7.715	289248552	1.022 ug/mL
8) AR1260peak1	9.014	601351467	0.986 ug/mL
9) AR1260peak2	9.477	235062488	1.014 ug/mL
10) AR1260peak3	9.698	474018504	0.964 ug/mL
11) AR1260peak4	10.247	1027559506	1.025 ug/mLm3
12) AR1260peak5	10.749	288056113	1.099 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0418.D

Vial: 16

Acq On : 04 May 2017 01:56 pm

Operator: ALS

Sample : SEQ-CCV9

Inst : ECD 4

Misc : PCB 1.0 92785

Multiplr: 1.00

Quant Time: May 05 08:09:20 2017

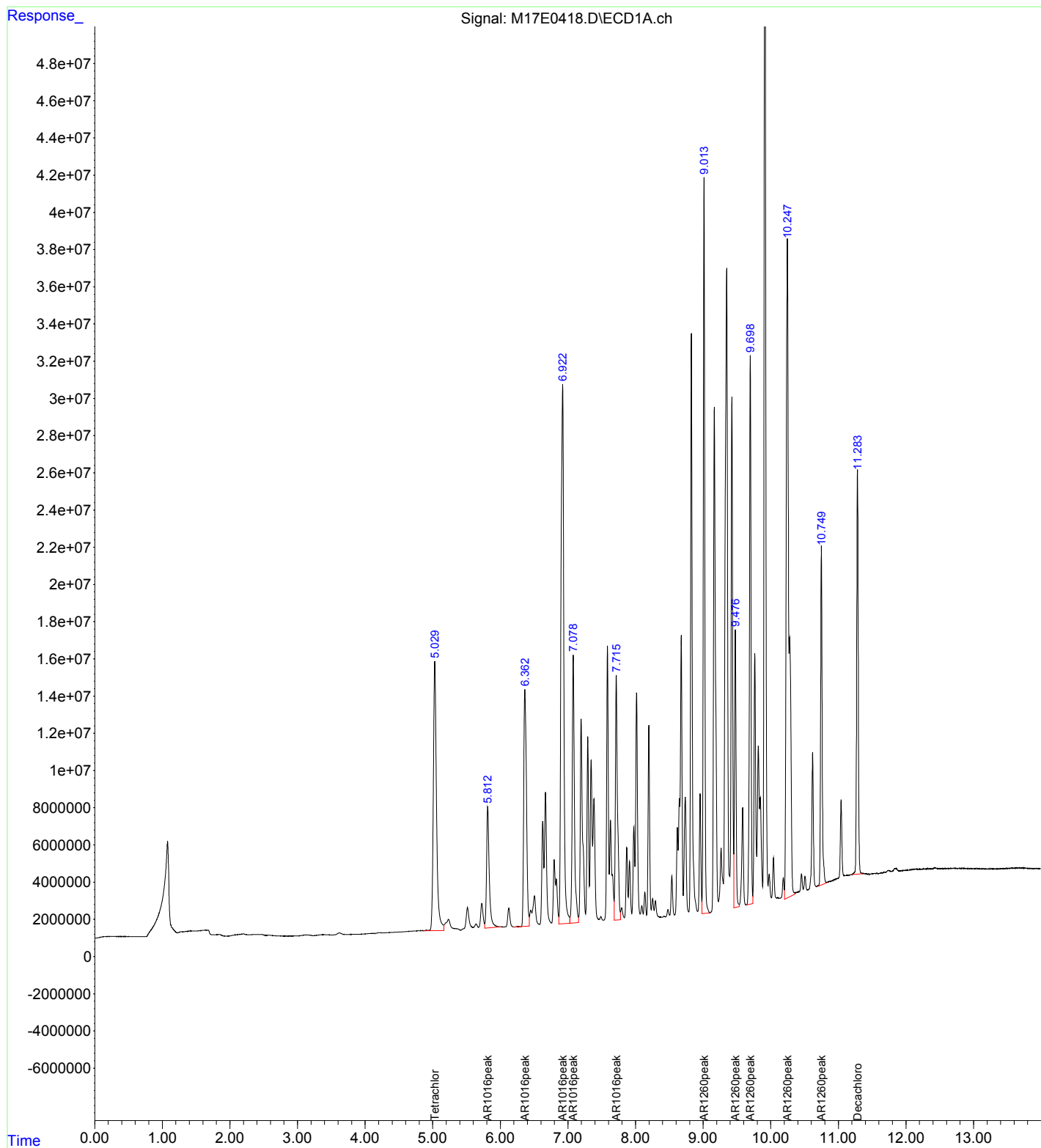
Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M

Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608

QLast Update : Wed Feb 01 08:47:57 2017

Response via : Initial Calibration

DataAcq Meth:ECD4.M



Evaluate Continuing Calibration Report

Data File : D:\MassHunter\Data\M17E04\M17E0431.D Vial: 26
 Acq On : 04 May 2017 05:43 pm Operator: ALS
 Sample : SEQ-CCVB Inst : ECD 4
 Misc : PCB 0.5 92784 Multiplr: 1.00
 Quant Time: May 05 08:12:04 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1 S	Tetrachloro-m-xylene	0.020	0.021	-5.0	104	0.00
2 S	Decachlorobiphenyl	0.020	0.017	15.0	87	-0.02
3	AR1016peak1	0.500	0.538	-7.6	107	-0.01
4	AR1016peak2	0.500	0.532	-6.4	105	-0.01
5	AR1016peak3	0.500	0.502	-0.4	101	-0.02
6	AR1016peak4	0.500	0.508	-1.6	101	-0.02
7	AR1016peak5	0.500	0.513	-2.6	103	-0.02
8	AR1260peak1	0.500	0.451	9.8	92	-0.02
9	AR1260peak2	0.500	0.499	0.2	100	-0.02
10	AR1260peak3	0.500	0.421	15.8	83	-0.02
11	AR1260peak4	0.500	0.441	11.8	86	-0.02
12	AR1260peak5	0.500	0.488	2.4	92	-0.02

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : D:\MassHunter\Data\M17E04\M17E0431.D Vial: 26
Acq On : 04 May 2017 05:43 pm Operator: ALS
Sample : SEQ-CCVB Inst : ECD 4
Misc : PCB 0.5 92784 Multiplr: 1.00
Quant Time: May 05 08:12:04 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

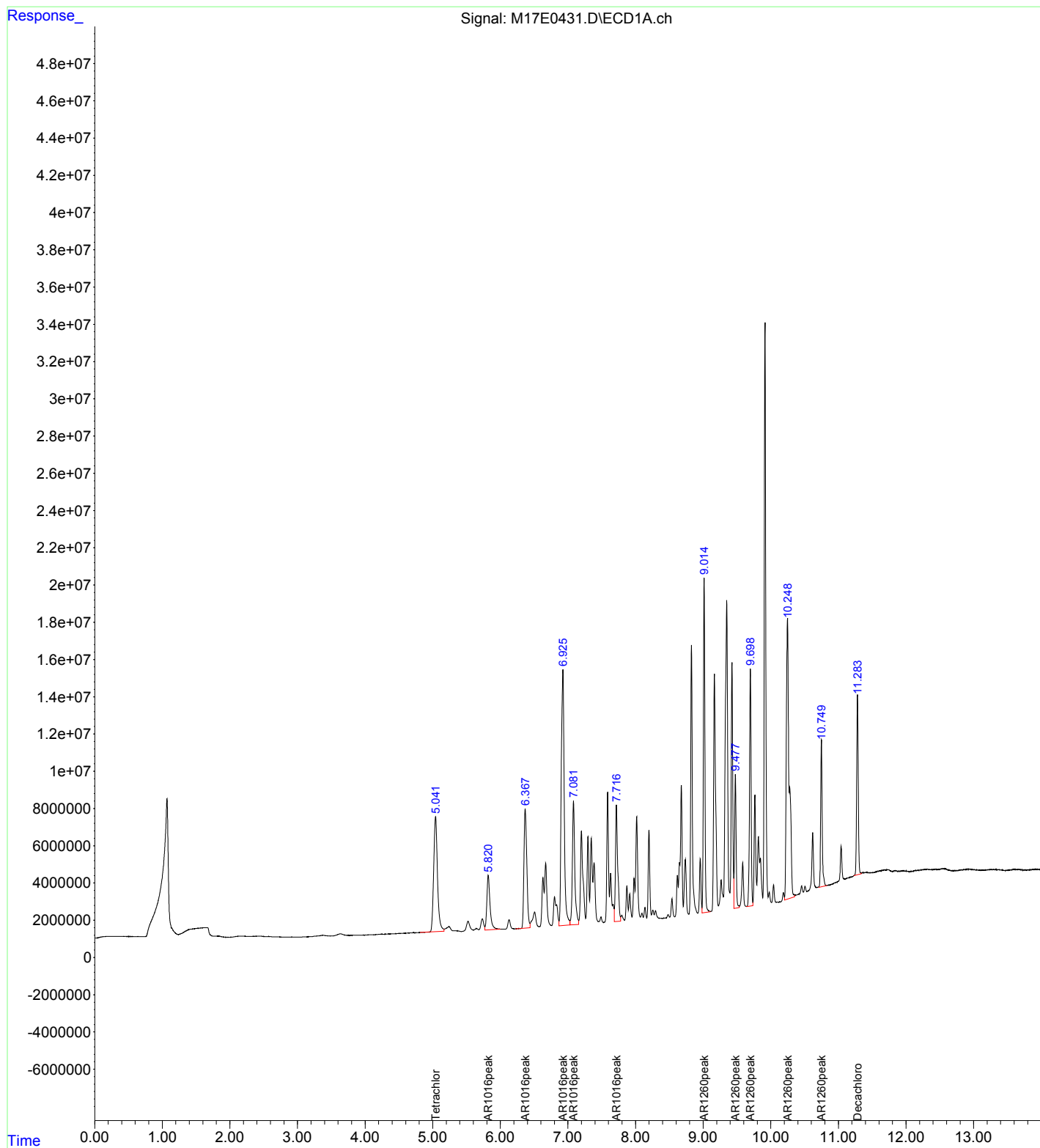
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.041	239966996	0.021 ug/mL
2) S Decachlorobiphenyl	11.283	155972125	0.017 ug/mLm3
Target Compounds			
3) AR1016peak1	5.820	94998508	0.538 ug/mL
4) AR1016peak2	6.367	189273739	0.532 ug/mL
5) AR1016peak3	6.926	417412539	0.502 ug/mL
6) AR1016peak4	7.082	165683644	0.508 ug/mL
7) AR1016peak5	7.716	145716560	0.513 ug/mL
8) AR1260peak1	9.015	277204989	0.451 ug/mL
9) AR1260peak2	9.477	114852799	0.499 ug/mL
10) AR1260peak3	9.699	206077487	0.421 ug/mL
11) AR1260peak4	10.248	443491788	0.441 ug/mL
12) AR1260peak5	10.749	125210929	0.488 ug/mLm3

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0431.D Vial: 26
Acq On : 04 May 2017 05:43 pm Operator: ALS
Sample : SEQ-CCVB Inst : ECD 4
Misc : PCB 0.5 92784 Multiplr: 1.00
Quant Time: May 05 08:12:04 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M



Evaluate Continuing Calibration Report

Data File : D:\MassHunter\Data\M17E04\M17E0446.D Vial: 40
Acq On : 04 May 2017 10:04 pm Operator: ALS
Sample : SEQ-CCVC Inst : ECD 4
Misc : PCB 1.0 92785 Multiplr: 1.00
Quant Time: May 05 08:16:00 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1 S	Tetrachloro-m-xylene	0.040	0.041	-2.5	104	-0.02
2 S	Decachlorobiphenyl	0.040	0.034	15.0	85	-0.02
3	AR1016peak1	1.000	1.062	-6.2	106	-0.02
4	AR1016peak2	1.000	1.038	-3.8	104	-0.02
5	AR1016peak3	1.000	1.015	-1.5	102	-0.02
6	AR1016peak4	1.000	1.011	-1.1	101	-0.02
7	AR1016peak5	1.000	1.005	-0.5	101	-0.02
8	AR1260peak1	1.000	0.876	12.4	89	-0.02
9	AR1260peak2	1.000	0.894	10.6	90	-0.02
10	AR1260peak3	1.000	0.848	15.2	84	-0.02
11	AR1260peak4	1.000	0.890	11.0	87	-0.02
12	AR1260peak5	1.000	0.983	1.7	93	-0.02

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : D:\MassHunter\Data\M17E04\M17E0446.D Vial: 40
Acq On : 04 May 2017 10:04 pm Operator: ALS
Sample : SEQ-CCVC Inst : ECD 4
Misc : PCB 1.0 92785 Multiplr: 1.00
Quant Time: May 05 08:16:00 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

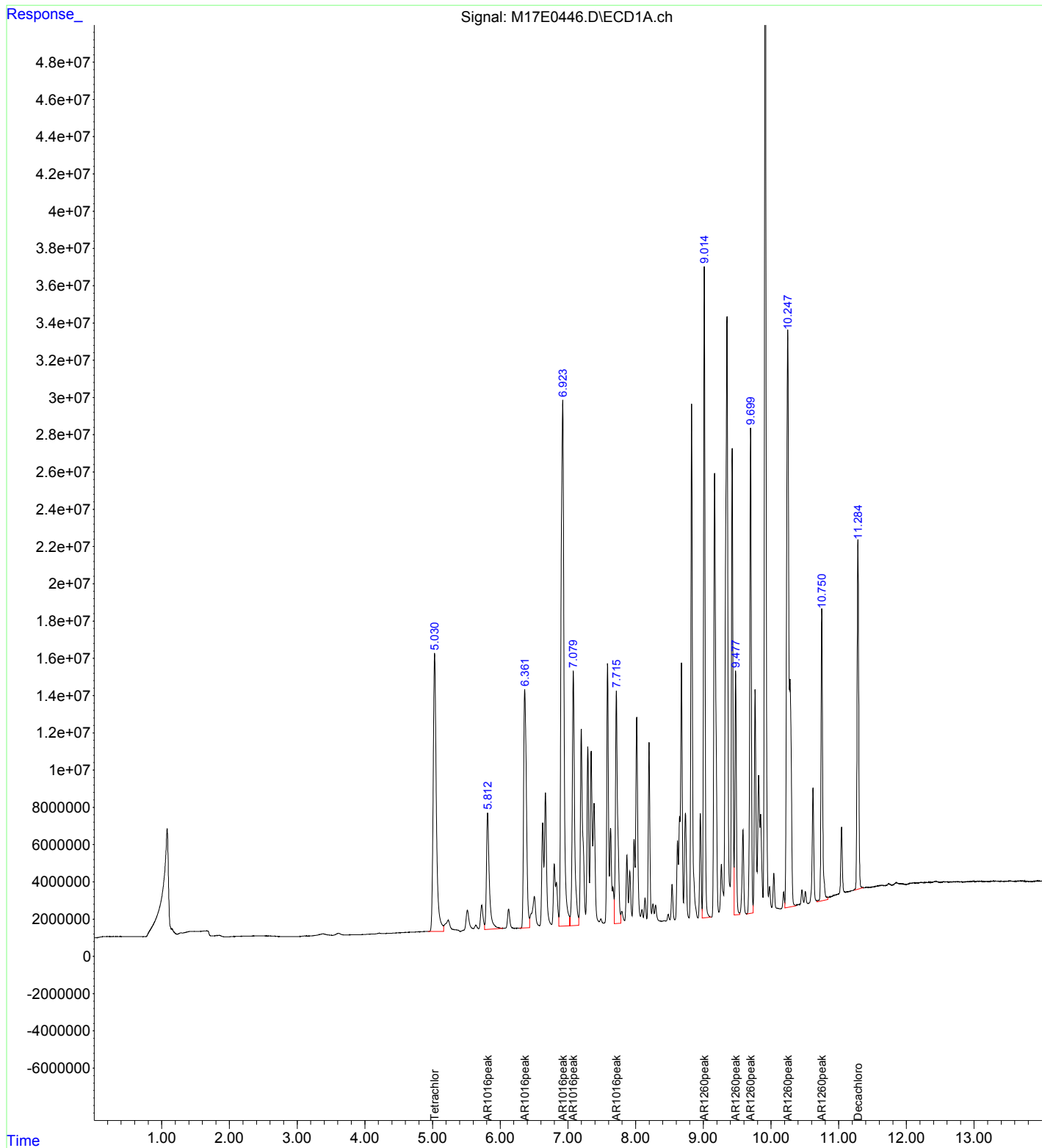
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.030	480588227	0.041 ug/mL
2) S Decachlorobiphenyl	11.284	309245408	0.034 ug/mLm3
Target Compounds			
3) AR1016peak1	5.813	183463657	1.062 ug/mL
4) AR1016peak2	6.362	366838426	1.038 ug/mL
5) AR1016peak3	6.923	843210775	1.015 ug/mL
6) AR1016peak4	7.079	327797255	1.011 ug/mL
7) AR1016peak5	7.715	284399954	1.005 ug/mL
8) AR1260peak1	9.015	535069014	0.876 ug/mL
9) AR1260peak2	9.478	206994310	0.894 ug/mL
10) AR1260peak3	9.699	416693025	0.848 ug/mL
11) AR1260peak4	10.248	892421961	0.890 ug/mL
12) AR1260peak5	10.750	257148663	0.983 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : D:\MassHunter\Data\M17E04\M17E0446.D Vial: 40
Acq On : 04 May 2017 10:04 pm Operator: ALS
Sample : SEQ-CCVC Inst : ECD 4
Misc : PCB 1.0 92785 Multiplr: 1.00
Quant Time: May 05 08:16:00 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M



Evaluate Continuing Calibration Report

Data File : D:\MassHunter\Data\M17E04\M17E0447.D Vial: 41
 Acq On : 04 May 2017 10:22 pm Operator: ALS
 Sample : SEQ-CCVD Inst : ECD 4
 Misc : AR1248 92560 Multiplr: 1.00
 Quant Time: May 05 09:12:05 2017

Quant Method : D:\MassHunter\GCMS\1\methods\M1248.M
 Quant Title : *8/10/14-ECD#4-COLM-CLP2-1248
 QLast Update : Fri Dec 02 09:57:05 2016
 Response via : Continuing Cal File: D:\MassHunter\Data\M113016\M113043.D
 DataAcq Meth:ECD4.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1 S	Tetrachloro-m-xylene	0.020	0.021	-5.0	103	0.00
2 S	Decachlorobiphenyl	0.020	0.016	20.0	81	0.00
3	Arl248peak1	0.500	0.566	-13.2	113	0.00
4	Arl248peak2	0.500	0.568	-13.6	114	0.00
5	Arl248peak3	0.500	0.548	-9.6	110	0.00
6	Arl248peak4	0.500	0.556	-11.2	111	0.00
7	Arl248peak5	0.500	0.568	-13.6	114	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : D:\MassHunter\Data\M17E04\M17E0447.D Vial: 41
Acq On : 04 May 2017 10:22 pm Operator: ALS
Sample : SEQ-CCVD Inst : ECD 4
Misc : AR1248 92560 Multiplr: 1.00
Quant Time: May 05 09:12:05 2017

Quant Method : D:\MassHunter\GCMS\1\methods\M1248.M
Quant Title : *8/10/14-ECD#4-COLM-CLP2-1248
QLast Update : Fri Dec 02 09:57:05 2016
Response via : Continuing Cal File: D:\MassHunter\Data\M113016\M113043.D
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.037	253775703	0.021 ug/mLm3
2) S Decachlorobiphenyl	11.284	160861550	0.016 ug/mLm3
Target Compounds			
3) Ar1248peak1	6.365	77428653	0.566 ug/mL
4) Ar1248peak2	7.081	72438422	0.568 ug/mLm3
5) Ar1248peak3	7.387	84183694	0.548 ug/mLm3
6) Ar1248peak4	7.587	170216976	0.556 ug/mL
7) Ar1248peak5	8.025	232615015	0.568 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

Wet Chemistry

Wet Chemistry SM 2540 G-1997

FORM 1: Wet Chemistry SM 2540 G-1997 RESULTS SUMMARY



Laboratory Report Number: 17E0065

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS

FORM 1

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E0065-03			Instrument: Bal-10			
Client ID: OL1579			Prep Date: 5/5/17 7:02 pm			
Matrix: Solid			Calibration: NA			
Batch / Sequence: B102327 /			Analyzed: 5/5/17 7:11 pm			
Collection Date: 4/28/17 3:05 pm			File ID: 050517 - PSOLID_2540Bei-00			
Analytical Method: SM 2540 G-1997			Dilution: 1			
Analyst: agrieff			Units: wt%			
			% Solids: 44.60			
Analyte	CAS Number	Result	MDL	RL	Flag	Qualifier
Percent Solids	E-10151	45	0.050	0.10		

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E0065-04			Instrument: Bal-10			
Client ID: OL1580			Prep Date: 5/5/17 7:02 pm			
Matrix: Solid			Calibration: NA			
Batch / Sequence: B102327 /			Analyzed: 5/5/17 7:11 pm			
Collection Date: 4/28/17 3:10 pm			File ID: 050517 - PSOLID_2540Bei-00			
Analytical Method: SM 2540 G-1997			Dilution: 1			
Analyst: agrieff			Units: wt%			
			% Solids: 96.66			
Analyte	CAS Number	Result	MDL	RL	Flag	Qualifier
Percent Solids	E-10151	97	0.050	0.10		

Flags and Qualifiers

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

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FORM 6:
Wet Chemistry
SM 2540 G-1997
Duplicates



Laboratory Report Number: 17E0065

Client Project ID: OL - OL

Duplicate

Form 6

Parent ID: 17E0269-03		Calibration:		Method: SM 2540 G-1997	
Instrument: Bal-10		File ID: 050517 - PSOLID_2		Dil: 1	
Sample ID: B102327-DUP1		Batch: B102327		Matrix: Solid	
				Units: g	
Analyte		Parent	Duplicate	RPD	RPD Limit
Percent Solids		92.8	92.8	0.0556	20

* - Exceeds RPD Limit

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FORM 9:
Wet Chemistry
SM 2540 G-1997
MDL/MRLs

Laboratory Report ID: 17E0065

METHOD DETECTION AND REPORTING LIMITS
FORM 9

Client Project ID: OL - OL

Instrument:		Method: SM 2540 G-1997	
Matrix: Solid		Version: NONE	
Analyte	MDL	MRL	Units
Percent Solids	0.050	0.10	wt%

Section A:
Wet Chemistry
SM 2540 G-1997
Batch / Sequence Raw Data

Microbac Laboratories - Chicagoland Division
Percent Solids

Date/Time: 5/5/2017 19:11

Test Code: **PSOLID_2540B**

Analyst: **agrieff**Units:

WT%

		Date/Time Open
In	5/5/2017 19:59	5/8/2017 9:47
Out	5/8/2017 8:07	5/8/2017 10:15
		5/8/2017 11:17
		5/8/2017 12:49

Oven ID: 3

Oven Temp
Verified:

Date/Time Desiccator	
In	5/8/2017 8:07 5/8/2017 10:15 5/8/2017 12:49
Out	5/8/2017 9:44 5/8/2017 11:12 5/8/2017 13:34

Balance Calibration Verified: ☒

[illegible]



SAMPLE CUSTODY CHAIN - IDEM OFFICE OF LAND QUALITY

State Form 42091 (R2/10-06)

Please Send Report to:

IDEM
OLQ Chemistry Section
Attn: QA Officer
MC 66-20 IGCN N1101
100 N Senate Avenue
Indianapolis, IN 46204-2251
www.idem.IN.gov

(1) SAMPLE CERTIFICATION - I certify the following samples were collected by me or in my presence:	Print Name: <u>George Ritchett</u>
Sample Date(s): <u>4-28-2017</u>	Signature: <u>George Ritchett</u>

(2A-2C) SAMPLE INFORMATION			(2D) COUNTS				(2E-2F) ANALYSES REQUESTED										(2G) COMMENTS	(2H-2J) DATE & TIME			
Laboratory Control Number (Lab Use)	IDEM Sample Number	Matrix or Sample Type	Glass Bottles	Plastic Bottles	40 ml Vials	Other	PCDS											Date	Time	AM	PM
1720065																					
01	OL1577/001-4	oil	✓				✓									Action level 2ppm		3:20		✓	
02	OL1578/001-5	oil	✓				✓									Action level 2ppm		3:25		✓	
03	OL1579/001-2	sediment	✓				✓									Action level 50ppm		3:05		✓	
04	OL1580/001-3	sediment	✓				✓									Action level 50ppm		3:10		✓	
05	OL1581/001-1	wipe				✓	✓									Action level 10-ug		2:52		✓	

(3) REQUIRED TURNAROUND TIME (with full documentation)			
30 days	14 days	<u>7 days</u>	2 days

(4) COMMENTS
62 -1.6 OI 4.6°C

FOR LABORATORY USE ONLY:	
Cooler Temp: 4.6°C	Sample Condition: OI

(5) TRANSFER OF CUSTODY - I certify that I received the above samples.		Date	Time
Relinquished by: Sign <u>George Ritchett</u>		5/1/17	1640
Received by: Sign <u>Kristen Schuchman</u>			AM/PM
Relinquished by: Sign <u>William S. [Signature]</u>		5-2-17	7:00
Received by: Sign <u>William S. [Signature]</u>			AM/PM
		5-2-17	12:30

(6) LABORATORY RECEIPT OF SAMPLES		Date	Time
I certify that I received the above samples. After recording these samples in the official logbook, they will remain in the custody of competent lab personnel or be secured in a locked area at all times.			
Received by: Sign <u>Nicole Reinwater</u>		5-2-17	11:30
Laboratory: <u>Microbe</u>			AM/PM
Address: <u>250 W. 84th Dr. Merrillville, IN</u>			

(7) DISTRIBUTION: PINK COPY - IDEM Sampler YELLOW COPY - Lab (Keep) WHITE COPY - Lab (To be Returned to IDEM with Data Package)

10/06 Revision

46410

Internal COC Log

Storage Location: Sample Receipt

[illegible]

CollectionDate	ClientSampleID	SampleType	Analyte	Concentration	Units	DetectionLimit	Detection	AnalyticalMethod	Estimated	Comments
04/28/2017 15:20	OL1577	N	Aroclor 1016	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Aroclor 1221	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Aroclor 1232	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Aroclor 1242	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Aroclor 1248	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Aroclor 1254	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Aroclor 1260	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Aroclor 1262	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Aroclor 1268	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Decachlorobiphenyl	160	µg/Kg		No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Tetrachloro-m-xylene	180	µg/Kg		No	SW-846 8082	No	
04/28/2017 15:20	OL1577	N	Total PCB's	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Aroclor 1016	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Aroclor 1221	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Aroclor 1232	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Aroclor 1242	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Aroclor 1248	2400	µg/Kg	990	Yes	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Aroclor 1254	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Aroclor 1260	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Aroclor 1262	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Aroclor 1268	990	µg/Kg	990	No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Decachlorobiphenyl	140	µg/Kg		No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Tetrachloro-m-xylene	160	µg/Kg		No	SW-846 8082	No	
04/28/2017 15:25	OL1578	N	Total PCB's	2400	µg/Kg	990	Yes	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Aroclor 1016	440	µg/Kg dry	440	No	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Aroclor 1221	440	µg/Kg dry	440	No	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Aroclor 1232	440	µg/Kg dry	440	No	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Aroclor 1242	440	µg/Kg dry	440	No	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Aroclor 1248	7200	µg/Kg dry	440	Yes	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Aroclor 1254	440	µg/Kg dry	440	No	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Aroclor 1260	440	µg/Kg dry	440	No	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Aroclor 1262	440	µg/Kg dry	440	No	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Aroclor 1268	440	µg/Kg dry	440	No	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Decachlorobiphenyl	100	µg/Kg dry		No	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Percent Solids	45	wt%	0.10	Yes	SM 2540 G-1997	No	
04/28/2017 15:05	OL1579	N	Tetrachloro-m-xylene	0	µg/Kg dry		No	SW-846 8082	No	
04/28/2017 15:05	OL1579	N	Total PCB's	7200	µg/Kg dry	440	Yes	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Aroclor 1016	2000	µg/Kg dry	2000	No	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Aroclor 1221	2000	µg/Kg dry	2000	No	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Aroclor 1232	2000	µg/Kg dry	2000	No	SW-846 8082	No	

CollectionDate	ClientSampleID	SampleType	Analyte	Concentration	Units	DetectionLimit	Detection	AnalyticalMethod	Estimated	Comments
04/28/2017 15:10	OL1580	N	Aroclor 1242	2000	µg/Kg dry	2000	No	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Aroclor 1248	26000	µg/Kg dry	2000	Yes	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Aroclor 1254	2000	µg/Kg dry	2000	No	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Aroclor 1260	2000	µg/Kg dry	2000	No	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Aroclor 1262	2000	µg/Kg dry	2000	No	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Aroclor 1268	2000	µg/Kg dry	2000	No	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Decachlorobiphenyl	0	µg/Kg dry		No	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Percent Solids	97	wt%	0.10	Yes	SM 2540 G-1997	No	
04/28/2017 15:10	OL1580	N	Tetrachloro-m-xylene	41	µg/Kg dry		No	SW-846 8082	No	
04/28/2017 15:10	OL1580	N	Total PCB's	26000	µg/Kg dry	2000	Yes	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Aroclor 1016	1.0	µg/Area	1.0	No	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Aroclor 1221	1.0	µg/Area	1.0	No	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Aroclor 1232	1.0	µg/Area	1.0	No	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Aroclor 1242	1.0	µg/Area	1.0	No	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Aroclor 1248	1.0	µg/Area	1.0	No	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Aroclor 1254	1.0	µg/Area	1.0	No	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Aroclor 1260	1.0	µg/Area	1.0	No	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Aroclor 1262	1.0	µg/Area	1.0	No	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Aroclor 1268	1.0	µg/Area	1.0	No	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Decachlorobiphenyl	0.13	µg/Area	0.0	Yes	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Tetrachloro-m-xylene	0.14	µg/Area	0.0	Yes	SW-846 8082	No	
04/28/2017 14:52	OL1581	N	Total PCB's	1.0	µg/Area	1.0	No	SW-846 8082	No	

ATTACHMENT H

**DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
INDIANAPOLIS**

OFFICE MEMORANDUM

Date: June 23, 2017

To: George Ritchotte
Industrial Waste Section

Thru: Steve Buckel


6/23/17

From: Namrata Patel  06/23/17
Chemistry Services Section

Subject: Analytical Results for BRC Rubber & Plastics
Churubusco, Whitley Co., Indiana
Site # IND0005081526, AI # 56434
Sampled: May 16, 2017
Sample Numbers: OL1589-OL1591
Microbac

The analytical result for the sample identified above has been validated according to the quality criteria contained in the Laboratory Services Contract (RFP 13-83) and the Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) Third Edition, and its updates. Based on the evaluation, it has been determined that the result is acceptable for use.

General Comments:

Sampling was conducted at BRC Rubber & Plastics to determine the source of the PCBs. Three rubber solid samples were collected and analyzed for PCBs. Two rubber solid samples were collected from precured formulations and one was collected after the rubber went through the press.

Sampling Quality Assurance/Quality Control:

Field documentation did allow for interpretation of the data.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). Field duplicate samples were not collected during the sampling event. Therefore, sample results variability cannot be assessed.

Laboratory Quality Assurance/Quality Control:

The laboratory performed all quality assurance/quality control (QA/QC) measures necessary to validate the analytical results for this sampling event. The data was determined to be valid. Based on the validation of the analytical result, the following comments and/or qualifications are

made regarding the data:

PCBs

Rubber solid samples OL1589-OL1591 were analyzed for PCBs by SW-846 Method 8082.

The matrix spike/matrix spike duplicate (MS/MSD) was not performed on the samples. Instead, the laboratory analyzed a Laboratory Control Sample (LCS) and a LCS Duplicate to verify the recoveries. The recoveries for the LCS and LCSD were within the control limits; however, the relative percent difference (%RPD) for Aroclor 1016 and Aroclor 1260 were high, outside the laboratory established control limits. Since the recoveries for these two Aroclors are within the control limits, the data quality is not affected.

During the analysis of sample OL1591, the surrogate recovery for Decachlorobiphenyl was high, outside the laboratory established control limit. PCBs were non-detect in the sample; therefore, the data quality is not affected.

All other laboratory quality control criteria provided for PCBs analyses were satisfactory.

Results:

PCBs were non-detect in the rubber solid samples OL1589-OL1591. The results are summarized in the attached table.

Conclusions

The data are usable for the overall project goal.

Attachment

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

SITE AND SAMPLING INFORMATION

Site Name:

Site Number:

Location:

Date Sampled:

Date Reported:

Sample Numbers:

Lab:

Push Button to Print Page:

Sample #		Type/ID#
Lab	IDEM	

RCRA Metals & Primary Standards

Metals Secondary Standards

General Chemical Analysis

Volatile Organic Analysis

Semi-volatile Organic Analysis

PCBs/Pesticides/Herbicides

TCLP Metals

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

PCBs

Site Name:	BRC Rubber & Plastics, Inc.
Site Number:	AI # 56434, IND005081526
Location:	Churubusco, Whitley Co., IN
Date Sampled:	16-May-17
Date Reported:	21-Jun-17
Sample Numbers:	OL1589-OL1591
Lab:	Microbac

Solid Rubber

UNITS: **ug/kg**

Sample #		Type/ID#	Arclor 1248
Lab	IDEM		
		Reporting Limits	260 - 310
TSCA PCB Action Level			50,000
17E1497-01	OL1589	001-1	
17E1497-02	OL1590	001-2	
17E1497-03	OL1591	001-3	

Empty Boxes- non-detect

JUN 21 2017



May 31, 2017

Indiana Department of Environmental Management
OLQ, 100 N. Senate Ave., Room N1101
Indianapolis, IN 46204-2251

Work Order No.: 17E1497

Re: OL1589 - OL1591

Dear David Harrison:

Microbac Laboratories, Inc. - Chicagoland Division received 3 sample(s) on 5/23/2017 10:31:00AM for the analyses presented in the following report as Work Order 17E1497.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Donna Ruokonen, Managing Director, at donna.ruokonen@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Kristen Gehlbach
Senior Project Manager

**WORK ORDER SAMPLE SUMMARY****Date:** *Wednesday, May 31, 2017*

Client: Indiana Department of Environmental Management
Project: OL1589 - OL1591
Lab Order: 17E1497

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
17E1497-01	OL1589	001-1	05/16/2017 14:34	5/23/2017 10:31:00AM
17E1497-02	OL1590	001-2	05/16/2017 14:39	5/23/2017 10:31:00AM
17E1497-03	OL1591	001-3	05/16/2017 14:50	5/23/2017 10:31:00AM

**CASE NARRATIVE****Date:** *Wednesday, May 31, 2017***Client:** Indiana Department of Environmental Management**Project:** OL1589 - OL1591**Lab Order:** 17E1497

The Laboratory Control Sample Duplicate associated with the following samples failed the precision criteria for Aroclor 1016 and Aroclor 1260. The accuracy criteria were met by the Laboratory Control Sample and Laboratory Control Sample Duplicate.

<u>Laboratory ID</u>	<u>Sample Name</u>
17E1497-01	OL1589
17E1497-02	OL1590
17E1497-03	OL1591

Microbac Laboratories, Inc.

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Analytical Results

Date: Wednesday, May 31, 2017

Client: Indiana Department of Environmental Management

Client Project: OL1589 - OL1591

Client Sample ID: OL1589

Sample Description: 001-1

Matrix: Solid

Work Order/ID: 17E1497-01

Sampled: 05/16/2017 14:34

Received: 05/23/2017 10:31

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: SW-846 8082							Analyst: ALS		
Polychlorinated Biphenyls							Prep Date/Time: 05/24/2017 11:56		
Aroclor 1016	dilo	A	ND	93	310		µg/Kg dry	1	05/25/2017 22:40
Aroclor 1221	dilo	A	ND	70	310		µg/Kg dry	1	05/25/2017 22:40
Aroclor 1232	dilo	A	ND	88	310		µg/Kg dry	1	05/25/2017 22:40
Aroclor 1242	dilo	A	ND	29	310		µg/Kg dry	1	05/25/2017 22:40
Aroclor 1248	dilo	A	ND	28	310		µg/Kg dry	1	05/25/2017 22:40
Aroclor 1254	dilo	A	ND	20	310		µg/Kg dry	1	05/25/2017 22:40
Aroclor 1260	dilo	A	ND	120	310		µg/Kg dry	1	05/25/2017 22:40
Aroclor 1262	I	A	ND	37	310		µg/Kg dry	1	05/25/2017 22:40
Aroclor 1268	I	A	ND	21	310		µg/Kg dry	1	05/25/2017 22:40
Total PCB's	I	A	ND	93	310		µg/Kg dry	1	05/25/2017 22:40
Surr: Tetrachloro-m-xylene		S	70.0		40-130		%REC	1	05/25/2017 22:40
Surr: Decachlorobiphenyl		S	125		38-128		%REC	1	05/25/2017 22:40

Method: SM 2540 G-1997						Analyst: agrieff			
Percent Solids						Prep Date/Time: 05/23/2017 16:31			
Percent Solids	di	A	99	0.050	0.10	wt%	1	05/23/2017 16:32	

Microbac Laboratories, Inc.

5713 W. 85th Street | Indianapolis, IN 46278 | 800.466.5577 p | 317.872.1375 p | 317.872.1379 f | www.microbac.com



Analytical Results

Date: Wednesday, May 31, 2017

Client: Indiana Department of Environmental Management
Client Project: OL1589 - OL1591
Client Sample ID: OL1590
Sample Description: 001-2
Matrix: Solid

Work Order/ID: 17E1497-02
Sampled: 05/16/2017 14:39
Received: 05/23/2017 10:31

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: SW-846 8082					Analyst: ALS				
Polychlorinated Biphenyls					Prep Date/Time: 05/24/2017 11:56				
Aroclor 1016	dilo	A	ND	85	290		µg/Kg dry	1	05/25/2017 22:57
Aroclor 1221	dilo	A	ND	64	290		µg/Kg dry	1	05/25/2017 22:57
Aroclor 1232	dilo	A	ND	80	290		µg/Kg dry	1	05/25/2017 22:57
Aroclor 1242	dilo	A	ND	26	290		µg/Kg dry	1	05/25/2017 22:57
Aroclor 1248	dilo	A	ND	25	290		µg/Kg dry	1	05/25/2017 22:57
Aroclor 1254	dilo	A	ND	18	290		µg/Kg dry	1	05/25/2017 22:57
Aroclor 1260	dilo	A	ND	110	290		µg/Kg dry	1	05/25/2017 22:57
Aroclor 1262	I	A	ND	34	290		µg/Kg dry	1	05/25/2017 22:57
Aroclor 1268	I	A	ND	19	290		µg/Kg dry	1	05/25/2017 22:57
Total PCB's	I	A	ND	85	290		µg/Kg dry	1	05/25/2017 22:57
Surr: Tetrachloro-m-xylene		S	80.0		40-130		%REC	1	05/25/2017 22:57
Surr: Decachlorobiphenyl		S	90.0		38-128		%REC	1	05/25/2017 22:57

Method: SM 2540 G-1997					Analyst: agrieff				
Percent Solids					Prep Date/Time: 05/23/2017 16:31				
Percent Solids	dl	A	99	0.050	0.10		wt%	1	05/23/2017 16:32



Analytical Results

Date: Wednesday, May 31, 2017

Client: Indiana Department of Environmental Management
 Client Project: OL1589 - OL1591
 Client Sample ID: OL1591
 Sample Description: 001-3
 Matrix: Solid

Work Order/ID: 17E1497-03
 Sampled: 05/16/2017 14:50
 Received: 05/23/2017 10:31

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: SW-846 8082					Analyst: ALS				
Polychlorinated Biphenyls					Prep Date/Time: 05/24/2017 11:56				
Aroclor 1016	dilo	A	ND	76	260		µg/Kg dry	1	05/25/2017 23:15
Aroclor 1221	dilo	A	ND	58	260		µg/Kg dry	1	05/25/2017 23:15
Aroclor 1232	dilo	A	ND	72	260		µg/Kg dry	1	05/25/2017 23:15
Aroclor 1242	dilo	A	ND	23	260		µg/Kg dry	1	05/25/2017 23:15
Aroclor 1248	dilo	A	ND	23	260		µg/Kg dry	1	05/25/2017 23:15
Aroclor 1254	dilo	A	ND	16	260		µg/Kg dry	1	05/25/2017 23:15
Aroclor 1260	dilo	A	ND	100	260		µg/Kg dry	1	05/25/2017 23:15
Aroclor 1262	I	A	ND	30	260		µg/Kg dry	1	05/25/2017 23:15
Aroclor 1268	I	A	ND	17	260		µg/Kg dry	1	05/25/2017 23:15
Total PCB's	I	A	ND	76	260		µg/Kg dry	1	05/25/2017 23:15
Surr: Tetrachloro-m-xylene		S	75.0		40-130		%REC	1	05/25/2017 23:15
Surr: Decachlorobiphenyl		S	195		38-128	S	%REC	1	05/25/2017 23:15

Method: SM 2540 G-1997					Analyst: agrieff				
Percent Solids					Prep Date/Time: 05/23/2017 16:31				
Percent Solids	di	A	100	0.050	0.10		wt%	1	05/23/2017 16:32



FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank	ICSA = Interference Check Standard "A"
DUP = Method Duplicate	ICSAB = Interference Check Standard "AB"
BS = Method Blank Spike	BSD = Method Blank Spike Duplicate
MS = Matrix Spike	MSD = Matrix Spike Duplicate
ICB = Initial Calibration Blank	ICV = Initial Calibration Verification
CCB = Continuing Calibration Blank	CCV = Continuing Calibration Verification
CRL = Client Required Reporting Limit	OPR = Ongoing Precision and Recovery Standard
PDS = Post Digestion Spike	SD = Serial Dilution
QCS = Quality Control Standard	

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

- ° Illinois EPA drinking water, wastewater and solid waste analysis (#200064)
 - ° Kansas Dept Health & Env. NELAP (#E-10397)
 - ° North Carolina DENR NPDES effluent, surface water (#597)
 - ° Virginia Department of General Services Division of Consolidated Laboratory Services (#7990)

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COOLER INSPECTION

Client Name: Indiana Department of Environmental Management

Date: Wednesday, May 31, 2017

Date/Time Received: 05/23/2017 10:31

Work Order Number: 17E1497

Received by: Nicole Rainwater

Checklist completed by: 5/23/2017 3:25:00PM Nicole Rainwater

Reviewed by: 5/24/2017 KG

Carrier Name: Microbac

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 1.0° C

After-Hour Arrival?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Shipping container/cooler in good condition?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample containers?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
COC present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included sufficient client identification?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included sufficient sample collector information?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included a sample description?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC agrees with sample labels?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC identified the appropriate matrix?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included date of collection?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included time of collection?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC identified the appropriate number of containers?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Samples in proper container/bottle?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Sample containers intact?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
All samples received within holding time?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
If the samples are preserved, are the preservatives identified?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	

If No, adjusted by? _____

COC included the requested analyses?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC signed when relinquished and received?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Samples received on ice?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Samples properly preserved?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Voa vials for aqueous samples have zero headspace?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>

Cooler Comments: Size reduction performed at lab

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
17E1497-01	OL1589	ICOC
17E1497-02	OL1590	ICOC
17E1497-03	OL1591	ICOC

SAMPLE CUSTODY CHAIN - IDEM OFFICE OF LAND QUALITY

State Form 42091 (R2/10-06)

Please Send Report to:

IDEM
OLQ Chemistry Section
Attn: QA Officer
MC 66-20 IGCN N1101
100 N Senate Avenue
Indianapolis, IN 46204-2251
www.idem.IN.gov

(1) **SAMPLE CERTIFICATION** - I certify the following samples were collected by me or in my presence:

Print Name: George Ritchie

Sample Date(s):

May 16, 2017

Signature: George R. H. H.

17E1497 Kristen Gehlbach
IDEM - Indianapolis, IN
OL1589 - OL1590 - OL1591
05/23/2017

[illegible]

(3) REQUIRED TURNAROUND TIME (with full documentation)			
30 days	14 days	7 days	2 days

(4) COMMENTS

2-6

FOR LABORATORY USE ONLY:	
Cooler Temp: 10°C	Sample Condition: 07

(5) TRANSFER OF CUSTODY - I certify that I received the above samples.		Date	Time
Relinquished by:	Sign <i>[Signature]</i>	5-22-11	2:00 AM
Received by:	Sign <i>[Signature]</i>		
Relinquished by:	Sign	5/22/11	1:51 PM
Received by:	Sign <i>[Signature]</i>		
(6) LABORATORY RECEIPT OF SAMPLES <i>[Signature]</i>		5-23-11 7:00	5-23-11 7:00
I certify that I received the above samples. After recording these samples in the official logbook, they will remain in the custody of competent lab personnel or be secured in a locked area at all times.			
Received by:	Sign <i>[Signature]</i>	Date	Time
Laboratory:	<i>Micro base</i>	5-23-11	1031
Address:			

(7) DISTRIBUTION: PINK COPY - IDEM Sampler YELLOW COPY - Lab (Keep)

Size Reduction performed @ Lab 5-23-17
NR#3

WHITE COPY - Lab (To be Returned to IDEM with Data Package)

William J. Griggs
Nada Reinwald

10/06 Revision
5-23-17 7:00
5-23 Page 9 of 9
5-23-17/03/1

CollectionDate	Client SamplID	Sample Type	Analyte	Concentration	Units	Detection Limit	Detection	AnalyticalMethod	Estimated	Comments
05/16/2017 14:34	OL1589	N	Aroclor 1016	310	µg/Kg dry	310	No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Aroclor 1221	310	µg/Kg dry	310	No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Aroclor 1232	310	µg/Kg dry	310	No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Aroclor 1242	310	µg/Kg dry	310	No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Aroclor 1248	310	µg/Kg dry	310	No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Aroclor 1254	310	µg/Kg dry	310	No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Aroclor 1260	310	µg/Kg dry	310	No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Aroclor 1262	310	µg/Kg dry	310	No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Aroclor 1268	310	µg/Kg dry	310	No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Decachlorobiphenyl	79	µg/Kg dry		No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Percent Solids	99	wt%	0.10	Yes	SM 2540 G-1997	No	
05/16/2017 14:34	OL1589	N	Tetrachloro-m-xylene	44	µg/Kg dry		No	SW-846 8082	No	
05/16/2017 14:34	OL1589	N	Total PCB's	310	µg/Kg dry	310	No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Aroclor 1016	290	µg/Kg dry	290	No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Aroclor 1221	290	µg/Kg dry	290	No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Aroclor 1232	290	µg/Kg dry	290	No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Aroclor 1242	290	µg/Kg dry	290	No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Aroclor 1248	290	µg/Kg dry	290	No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Aroclor 1254	290	µg/Kg dry	290	No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Aroclor 1260	290	µg/Kg dry	290	No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Aroclor 1262	290	µg/Kg dry	290	No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Aroclor 1268	290	µg/Kg dry	290	No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Decachlorobiphenyl	52	µg/Kg dry		No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Percent Solids	99	wt%	0.10	Yes	SM 2540 G-1997	No	
05/16/2017 14:39	OL1590	N	Tetrachloro-m-xylene	46	µg/Kg dry		No	SW-846 8082	No	
05/16/2017 14:39	OL1590	N	Total PCB's	290	µg/Kg dry	290	No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Aroclor 1016	260	µg/Kg dry	260	No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Aroclor 1221	260	µg/Kg dry	260	No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Aroclor 1232	260	µg/Kg dry	260	No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Aroclor 1242	260	µg/Kg dry	260	No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Aroclor 1248	260	µg/Kg dry	260	No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Aroclor 1254	260	µg/Kg dry	260	No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Aroclor 1260	260	µg/Kg dry	260	No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Aroclor 1262	260	µg/Kg dry	260	No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Aroclor 1268	260	µg/Kg dry	260	No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Decachlorobiphenyl	100	µg/Kg dry		No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Percent Solids	100	wt%	0.10	Yes	SM 2540 G-1997	No	
05/16/2017 14:50	OL1591	N	Tetrachloro-m-xylene	39	µg/Kg dry		No	SW-846 8082	No	
05/16/2017 14:50	OL1591	N	Total PCB's	260	µg/Kg dry	260	No	SW-846 8082	No	



LEVEL IV

QA/QC DATA PACKAGE

CLIENT:	Indiana Department of Environmental Management
PROJECT:	OL1589 - OL1591
LAB WORKORDER:	17E1497
DATE PACKAGE ISSUED:	06/19/2017

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Sample Summary

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Specific Method: SW-846 8082

Sample Summary

Laboratory Report Number: 17E1497

Client Project ID: OL - OL

Microbac Laboratories, Inc. - Chicagoland

GC Semivolatiles

Client Sample Id:	Lab Sample Id:
OL1589	17E1497-01
OL1590	17E1497-02
OL1591	17E1497-03

Wet Chemistry

Client Sample Id:	Lab Sample Id:
OL1589	17E1497-01
OL1590	17E1497-02
OL1591	17E1497-03

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee,

Signature: Matthew Sheehy

Name: Matthew J. Sheehy

Date: 6/19/2017

Title: QA Specialist

Holding Time Summary



Specific Method: SM 2540 G-1997

Hold Time

Laboratory Report Number: 17E1497

Matrix: Solid

Client Project ID: OL - OL

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
OL1589	05/16/17 14:34	05/23/17 10:31	05/23/17 16:31	7.00	7.00	05/23/17 16:32	0.00		
OL1590	05/16/17 14:39	05/23/17 10:31	05/23/17 16:31	7.00	7.00	05/23/17 16:32	0.00		
OL1591	05/16/17 14:50	05/23/17 10:31	05/23/17 16:31	7.00	7.00	05/23/17 16:32	0.00		



Specific Method: SW-846 8082

Hold Time

Laboratory Report Number: 17E1497

Matrix: Solid

Client Project ID: OL - OL

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
OL1589	05/16/17 14:34	05/23/17 10:31	05/24/17 11:56	8.00	14.00	05/25/17 22:40	1.45	40.00	
OL1590	05/16/17 14:39	05/23/17 10:31	05/24/17 11:56	8.00	14.00	05/25/17 22:57	1.46	40.00	
OL1591	05/16/17 14:50	05/23/17 10:31	05/24/17 11:56	8.00	14.00	05/25/17 23:15	1.47	40.00	

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GC Semivolatiles



Three solid samples were received on 5/23/2017 for analysis and reporting in accordance with our Level IV CLP-Like protocol. The samples were received in acceptable physical condition. The shipping container and sample container did not contain custody seals. The samples were analyzed for Polychlorinated Biphenyls using SW-846 3550B/8082. The solid samples were also analyzed for Percent Solids by SM 2540 G-1997. The solids data were used to calculate the dry-weight concentrations of the analytes.

The samples were collected on 5/16/2017. The samples were prepared on 5/24/2017 and analyzed on 5/25/2017. The samples were extracted and analyzed within the prescribed maximum allowable holding time without exception.

The required instrument calibrations and quality control tests were performed and the acceptance criteria met without exception. For PCB analysis, multi-point calibration curves were established for Aroclor 1016 and Aroclor 1260. Aroclor identification was performed by pattern matching a minimum of three peaks per Aroclor. The CCV standards met acceptance criteria without exception.

Surrogate compounds are spiked into each sample to evaluate the extraction and analysis efficiency. One of the two surrogate compounds is required to meet the acceptance criteria. The surrogates in the environmental sample met the accuracy criteria without exception.

See the report narrative and QC summary report for specific batch quality control information. Matrix evaluation was not performed on a sample in this batch. Precision criteria was evaluated through the analysis of a Laboratory Control Sample Duplicate. The acceptance criteria were met with the following exception.

B103251-BSD1 failed to meet the precision criteria for Aroclor 1016 and Aroclor 1260. This was considered insignificant because B103251-BS1 and B103251-BSD1 both met the accuracy criteria.

This Case Narrative was prepared by Matthew Sheehy, QA Specialist.



GC Semivolatiles SW-846 8082



FORM 1: GC Semivolatiles SW-846 8082 RESULTS SUMMARY

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Laboratory Report Number: 17E1497

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS

FORM 1

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E1497-01			Instrument: ECD-4-F			
Client ID: OL1589		Prep Method: SW846 3550B		Prep Date: 5/24/17 11:56 am		
Matrix: Solid		Analytical Method: SW-846 8082		Calibration: 0000559		
Batch / Sequence: B103251 / S034952		Analyst: ALS		Analyzed: 5/25/17 10:40 pm		
Collection Date: 5/16/17 2:34 pm		Dilution: 1		File ID: M17E2545.D		
Units: µg/Kg dry			% Solids: 99.46			
Analyte	CAS Number	Result	MDL	RL	Flag	Qualifier
Aroclor 1016	12674-11-2	ND	93	310		
Aroclor 1221	11104-28-2	ND	70	310		
Aroclor 1232	11141-16-5	ND	88	310		
Aroclor 1242	53469-21-9	ND	29	310		
Aroclor 1248	12672-29-6	ND	28	310		
Aroclor 1254	11097-69-1	ND	20	310		
Aroclor 1260	11096-82-5	ND	120	310		
Aroclor 1262	37324-23-5	ND	37	310		
Aroclor 1268	11100-14-4	ND	21	310		
Total PCB's		ND	93	310		

Surrogate	Recovery	Limits	Units	Q	Qualifier
Tetrachloro-m-xylene	70.0	40-130	% Rec		
Decachlorobiphenyl	125	38-128	% Rec		



Laboratory Report Number: 17E1497

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS
FORM 1

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E1497-02		Instrument: ECD-4-F	
Client ID: OL1590	Prep Method: SW846 3550B	Prep Date: 5/24/17 11:56 am	
Matrix: Solid	Analytical Method: SW-846 8082	Calibration: 0000559	
Batch / Sequence: B103251 / S034952	Analyst: ALS	Analyzed: 5/25/17 10:57 pm	
Collection Date: 5/16/17 2:39 pm	Dilution: 1	File ID: M17E2546.D	
Units: µg/Kg dry		% Solids: 99.40	

Analyte	CAS Number	Result	MDL	RL	Flag	Qualifier
Aroclor 1016	12674-11-2	ND	85	290		
Aroclor 1221	11104-28-2	ND	64	290		
Aroclor 1232	11141-16-5	ND	80	290		
Aroclor 1242	53469-21-9	ND	26	290		
Aroclor 1248	12672-29-6	ND	25	290		
Aroclor 1254	11097-69-1	ND	18	290		
Aroclor 1260	11096-82-5	ND	110	290		
Aroclor 1262	37324-23-5	ND	34	290		
Aroclor 1268	11100-14-4	ND	19	290		
Total PCB's		ND	85	290		

Surrogate	Recovery	Limits	Units	Q	Qualifier
Tetrachloro-m-xylene	80.0	40-130	% Rec		
Decachlorobiphenyl	90.0	38-128	% Rec		



Laboratory Report Number: 17E1497

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS

FORM 1

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E1497-03			Instrument: ECD-4-F			
Client ID: OL1591	Prep Method: SW846 3550B		Prep Date: 5/24/17 11:56 am			
Matrix: Solid	Analytical Method: SW-846 8082		Calibration: 0000559			
Batch / Sequence: B103251 / S034952		Analyst: ALS	Analyzed: 5/25/17 11:15 pm			
Collection Date: 5/16/17 2:50 pm		Dilution: 1	File ID: M17E2547.D			
		Units: µg/Kg dry	% Solids: 99.84			
Analyte	CAS Number	Result	MDL	RL	Flag	Qualifier
Aroclor 1016	12674-11-2	ND	76	260		
Aroclor 1221	11104-28-2	ND	58	260		
Aroclor 1232	11141-16-5	ND	72	260		
Aroclor 1242	53469-21-9	ND	23	260		
Aroclor 1248	12672-29-6	ND	23	260		
Aroclor 1254	11097-69-1	ND	16	260		
Aroclor 1260	11096-82-5	ND	100	260		
Aroclor 1262	37324-23-5	ND	30	260		
Aroclor 1268	11100-14-4	ND	17	260		
Total PCB's		ND	76	260		

Surrogate	Recovery	Limits	Units	Q	Qualifier
Tetrachloro-m-xylene	75.0	40-130	% Rec		
Decachlorobiphenyl	195	38-128	% Rec	*	

Flags and Qualifiers

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

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FORM 2:
GC Semivolatiles
SW-846 8082
SURROGATE SUMMARY



Laboratory Report Number: 17E1497

SURROGATE STANDARD RECOVERY
FORM 2C

Client Project ID: OL - OL

Instrument: ECD-4-F

Method: SW-846 8082

Sequence: S032942

Calibration: 0000559

Matrix: Aqueous

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Initial Cal Check (S032942-ICV1)				
		Lab File ID: M17A3110.D		Analyzed: 01/31/17 19:00
Tetrachloro-m-xylene	0.02000	90.0	0 - 200	
Decachlorobiphenyl	0.02000	95.0	0 - 200	



Laboratory Report Number: 17E1497

SURROGATE STANDARD RECOVERY
FORM 2C

Client Project ID: OL - OL

Instrument: ECD-4-F

Method: SW-846 8082

Sequence: S034952

Calibration: 0000559

Matrix: Solid

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	Q
Calibration Check (S034952-CCVC) Lab File ID: M17E2533.D Analyzed: 05/25/17 19:11				
Tetrachloro-m-xylene	0.04000	102	0 - 200	
Decachlorobiphenyl	0.04000	108	0 - 200	
Blank (B103251-BLK1) Lab File ID: M17E2540.D Analyzed: 05/25/17 21:13				
Tetrachloro-m-xylene	6.667	80.0	40 - 130	
Decachlorobiphenyl	6.667	125	38 - 128	
LCS (B103251-BS1) Lab File ID: M17E2541.D Analyzed: 05/25/17 21:30				
Tetrachloro-m-xylene	6.667	70.0	40 - 130	
Decachlorobiphenyl	6.667	65.0	38 - 128	
LCS Dup (B103251-BSD1) Lab File ID: M17E2542.D Analyzed: 05/25/17 21:47				
Tetrachloro-m-xylene	6.667	90.0	40 - 130	
Decachlorobiphenyl	6.667	105	38 - 128	
OL1589 (17E1497-01) Lab File ID: M17E2545.D Analyzed: 05/25/17 22:40				
Tetrachloro-m-xylene	63.43	70.0	40 - 130	
Decachlorobiphenyl	63.43	125	38 - 128	
OL1590 (17E1497-02) Lab File ID: M17E2546.D Analyzed: 05/25/17 22:57				
Tetrachloro-m-xylene	57.99	80.0	40 - 130	
Decachlorobiphenyl	57.99	90.0	38 - 128	
OL1591 (17E1497-03) Lab File ID: M17E2547.D Analyzed: 05/25/17 23:15				
Tetrachloro-m-xylene	51.90	75.0	40 - 130	
Decachlorobiphenyl	51.90	195	38 - 128	*
Calibration Check (S034952-CCVD) Lab File ID: M17E2551.D Analyzed: 05/26/17 00:24				
Tetrachloro-m-xylene	0.02000	105	0 - 200	
Decachlorobiphenyl	0.02000	100	0 - 200	



FORM 3:
GC Semivolatiles
SW-846 8082
BS/BSD, MS/MSD, DUP



Laboratory Report Number: 17E1497

Client Project ID: OL - OL

BLANK SPIKE / DUPLICATE (BS/BSD)

FORM 3B

Instrument: ECD-4-F		Analyzed: 05/25/17 21:30		Initial/Final: 30g/10ml	
Batch: B103251		Prepared: 05/24/17 11:56		Dup Initial/Final: 30g/10ml	
Blank Spike ID: B103251-BS1		Analyst: ALS		Method: SW-846 8082	
Blank Spike Dup ID: B103251-BSD1		File ID: M17E2541.D		Units: µg/Kg wet	
Matrix: Solid		File ID: M17E2542.D		Calibration: 0000559	

Analyte	BS Spiked	BS Found	BS %Rec	BSD Spiked	BSD Found	BSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Aroclor 1016	166.7	110	66.1	166.7	165	99.0	39.9	30.2 - 145	30	
Aroclor 1260	166.7	95.9	57.5	166.7	153	92.0	46.2	40.1 - 138	30	

Surrogate	BS Spiked	BS Found	BS %Rec	BSD Spiked	BSD Found	BSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Decachlorobiphenyl	6.667	4.3	65.0	6.667	7.0	105		38 - 128		
Tetrachloro-m-xylene	6.667	4.7	70.0	6.667	6.0	90.0		40 - 130		

* - Does not meet %Rec acceptance criteria.

- Does not meet RPD acceptance criteria.

NS - Analyte Not Spiked

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FORM 4:
GC Semivolatiles
SW-846 8082
METHOD BLANK SUMMARY

Microbac Laboratories, Inc.

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Laboratory Report Number: 17E1497
Client Project ID: OL - OL

METHOD BLANK SUMMARY
FORM 4A

Blank ID: B103251-BLK1	Batch: B103251
Blank File ID: M17E2540.D	Instrument: ECD-4-F
Prepared: 05/24/2017 11:56	Method: SW-846 8082
Analyzed: 05/25/2017 21:13	Analyst: ALS

This Method Blank Applies To The Following Samples:

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
Blank	B103251-BLK1	M17E2540.D	05/25/2017 21:13
LCS	B103251-BS1	M17E2541.D	05/25/2017 21:30
LCS Dup	B103251-BSD1	M17E2542.D	05/25/2017 21:47
OL1589	17E1497-01	M17E2545.D	05/25/2017 22:40
OL1590	17E1497-02	M17E2546.D	05/25/2017 22:57
OL1591	17E1497-03	M17E2547.D	05/25/2017 23:15



Laboratory Report Number: 17E1497

Client Project ID: OL - OL

METHOD BLANK
FORM 4B

Sample ID: B103251-BLK1	Prep Date: 05/24/17 11:56	Matrix: Solid
Instrument: ECD-4-F	Analyzed: 05/25/17 21:13	Method: SW-846 8082
File ID: M17E2540.D	Sequence: S034952	Prep Method: 3550_P
Batch: B103251	Units: µg/Kg wet	Analyst: ALS
Calibration: 0000559		

Analyte	Result	MDL	RL	Dilution	Flag	Q
Aroclor 1016	33	9.8	33	1	U	
Aroclor 1221	33	7.4	33	1	U	
Aroclor 1232	33	9.2	33	1	U	
Aroclor 1242	33	3.0	33	1	U	
Aroclor 1248	33	2.9	33	1	U	
Aroclor 1254	33	2.1	33	1	U	
Aroclor 1260	33	13	33	1	U	
Aroclor 1262	33	3.9	33	1	U	
Aroclor 1268	33	2.2	33	1	U	
Total PCB's	33	9.8	33	1	U	

Surrogate	Recovery	Limits	PASS/FAIL
Decachlorobiphenyl	125	38 - 128	PASS
Tetrachloro-m-xylene	80.0	40 - 130	PASS

* - Detected in the associated method Blank at a concentration >= RL

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FORM 6:
GC Semivolatiles
SW-846 8082
Response Factor Reports

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Response Factor Report ECD 4

Method Path : D:\MassHunter\GCMS\1\methods\
Method File : MPCB0131.M
Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
Last Update : Wed Feb 01 08:47:57 2017
Response Via : Initial Calibration

Calibration Files

0.05=M17A3102.D 0.10=M17A3103.D 0.20=M17A3104.D 0.5 =M17A3105.D 1.0 =M17A3106.D 1.5 =M17A3107.D
2.0 =M17A3108.D

Compound		0.05	0.10	0.20	0.5	1.0	1.5	2.0	Avg	%RSD:r^2	
1) Lin	Tetrachloro-m-...	10.822	10.578	10.357	11.558	11.572	11.743	11.632	11.180	E9	1.000
2) Lin	Decachlorobiph...	8.396	8.567	8.469	9.006	9.078	9.313	8.970	8.828	E9	0.999
3) Lin	AR1016peak1	2.651	2.005	1.765	1.781	1.723	1.793	1.669	1.913	E8	0.998
4) Lin	AR1016peak2	3.538	3.645	3.504	3.593	3.527	3.682	3.436	3.561	E8	0.998
5) Lin	AR1016peak3	7.954	7.954	7.870	8.279	8.287	8.714	8.087	8.163	E8	0.998
6) Lin	AR1016peak4	3.487	3.192	3.102	3.282	3.236	3.399	3.142	3.263	E8	0.997
7) Lin	AR1016peak5	3.149	2.640	2.780	2.833	2.802	2.969	2.755	2.847	E8	0.998
8) Lin	AR1260peak1	6.106	6.343	5.964	6.042	6.038	6.538	5.851	6.126	E8	0.995
9) Lin	AR1260peak2	2.275	2.036	2.167	2.304	2.301	2.375	2.303	2.252	E8	1.000
10) Lin	AR1260peak3	4.443	4.476	4.541	4.977	4.983	4.987	4.871	4.754	E8	1.000
11) Lin	AR1260peak4	1.204	1.007	0.883	1.026	1.025	0.992	1.001	1.020	E9	1.000
12) Lin	AR1260peak5	1.917	2.180	2.097	2.711	2.765	2.408	2.724	2.400	E8	0.993

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(#) = Out of Range

MPCB0131.M Thu Feb 02 08:15:13 2017

D:\MassHunter\GCMS\1\methods\MPCB0131.M\calfit.txt



FORM 7:
GC Semivolatiles
SW-846 8082
ICV/CCV



Laboratory Report Number: 17E1497

Client Project ID:

Initial Calibration Verification (ICV)

FORM 7A

Sample ID: S032942-ICV1		Analyzed: 01/31/17 19:00		Matrix: Aqueous			
Instrument: ECD-4-F		Calibration: 0000559		Method: SW-846 8082			
File ID: M17A3110.D		Analyst: als		Sequence: S032942			
		Units: ug/mL					
Analyte		Expected	Found	RF	% Drift	UCL	Q
Aroclor 1016		0.5000	0.479	3.832624E+08	-4.3	32	
Aroclor 1260		0.5000	0.455	4.683116E+08	-9.1	30	
Decachlorobiphenyl		0.02000	0.019	8.43424E+09	-5.0		
Tetrachloro-m-xylene		0.02000	0.018	1.056959E+10	-10.0		

* - Does not meet acceptance criteria.

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Laboratory Report Number: 17E1497
Client Project ID: OL - OL

Continuing Calibration Verification (CCV)
FORM 7B

Laboratory ID: S034952-CCVC		Analyzed: 05/25/17 19:11		Matrix: Aqueous			
Instrument: ECD-4-F		Calibration: 0000559		Method: SW-846 8082			
File ID: M17E2533.D		Units: ug/mL		Sequence: S034952			
Analyte		Expected	Found	Response	% Drift	UCL	Q
Aroclor 1016		1.000	1.08	420349100	7.7	15	
Aroclor 1260		1.000	1.15	592908800	14.8	15	
Decachlorobiphenyl		0.04000	0.043	393019200	7.5		
Tetrachloro-m-xylene		0.04000	0.041	480879300	2.5		

* - Does not meet acceptance criteria.

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Laboratory Report Number: 17E1497

Client Project ID: OL - OL

Continuing Calibration Verification (CCV)

FORM 7B

Laboratory ID: S034952-CCVD		Analyzed: 05/26/17 00:24		Matrix: Aqueous			
Instrument: ECD-4-F		Calibration: 0000559		Method: SW-846 8082			
File ID: M17E2551.D		Units: ug/mL		Sequence: S034952			
Analyte		Expected	Found	Response	% Drift	UCL	Q
Aroclor 1016		0.5000	0.531	208022600	6.1	15	
Aroclor 1260		0.5000	0.514	262714500	2.8	15	
Decachlorobiphenyl		0.02000	0.020	177824000	0.0		
Tetrachloro-m-xylene		0.02000	0.021	244741000	5.0		

* - Does not meet acceptance criteria.

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FORM 10:
GC Semivolatiles
SW-846 8082
Summary for Multi-Component
Analytes

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17E1497-01
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1589

Contract: IDEMCase No: 17E1497Date Analyzed: 05/25/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.811	NA	5.311	6.311	NA
	2	6.359	NA	5.859	6.859	NA
	3	6.919	NA	6.419	7.419	NA
	4	7.076	NA	6.576	7.576	NA
	5	7.710	NA	7.210	8.210	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.007	NA	8.507	9.507	NA
	2	9.469	NA	8.969	9.969	NA
	3	9.690	NA	9.190	10.190	NA
	4	10.238	NA	9.738	10.738	NA
	5	10.740	NA	10.240	11.240	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.036	4.529	5.529	0.014
DCB(SURR)	1	11.272	11.271	10.772	11.772	0.025

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: 17E1497-02
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

OL1590

Contract: IDEMCase No: 17E1497Date Analyzed: 05/25/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.811	5.839	5.311	6.311	NA
	2	6.359	NA	5.859	6.859	NA
	3	6.919	NA	6.419	7.419	NA
	4	7.076	NA	6.576	7.576	NA
	5	7.710	NA	7.210	8.210	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.007	NA	8.507	9.507	NA
	2	9.469	NA	8.969	9.969	NA
	3	9.690	NA	9.190	10.190	NA
	4	10.238	NA	9.738	10.738	NA
	5	10.740	NA	10.240	11.240	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.028	4.529	5.529	0.016
DCB(SURR)	1	11.272	11.272	10.772	11.772	0.018

PCB Identification Summary for Multicomponent Analytes

Lab Name:	Microbac Laboratories, Inc.	EPA SAMPLE NO.	OL1591
Lab Code:	ME	Contract:	IDEM
Lab Sample ID:	17E1497-03	Case No:	17E1497
Instrument ID:	ECD-3	Date Analyzed:	05/25/17
GC Column:	RTX-CLPesticides2		

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.811	NA	5.311	6.311	NA
	2	6.359	NA	5.859	6.859	NA
	3	6.919	NA	6.419	7.419	NA
	4	7.076	NA	6.576	7.576	NA
	5	7.710	NA	7.210	8.210	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.007	NA	8.507	9.507	NA
	2	9.469	NA	8.969	9.969	NA
	3	9.690	NA	9.190	10.190	NA
	4	10.238	NA	9.738	10.738	NA
	5	10.740	NA	10.240	11.240	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.034	4.529	5.529	0.015
DCB(SURR)	1	11.272	11.275	10.772	11.772	0.039

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102163-BLK1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102163-BLK1
 Contract: IDEM
 Case No: 17E1497
 Date Analyzed: 05/25/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.811	5.866	5.311	6.311	NA
	2	6.359	NA	5.859	6.859	NA
	3	6.919	NA	6.419	7.419	NA
	4	7.076	NA	6.576	7.576	NA
	5	7.710	NA	7.210	8.210	NA
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.007	NA	8.507	9.507	NA
	2	9.469	NA	8.969	9.969	NA
	3	9.690	NA	9.190	10.190	NA
	4	10.238	NA	9.738	10.738	NA
	5	10.740	NA	10.240	11.240	NA
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.032	4.529	5.529	0.016
DCB(SURR)	1	11.272	11.270	10.772	11.772	0.025

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102163-BS1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102163-BS1

Contract: IDEMCase No: 17E1497Date Analyzed: 05/25/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.811	5.819	5.311	6.311	0.338
	2	6.359	6.363	5.859	6.859	0.329
	3	6.919	6.925	6.419	7.419	0.299
	4	7.076	7.080	6.576	7.576	0.342
	5	7.710	7.712	7.210	8.210	0.345
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.007	9.008	8.507	9.507	0.282
	2	9.469	9.470	8.969	9.969	0.297
	3	9.690	9.691	9.190	10.190	0.260
	4	10.238	10.240	9.738	10.738	0.297
	5	10.740	10.741	10.240	11.240	0.302
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.035	4.529	5.529	0.014
DCB(SURR)	1	11.272	11.272	10.772	11.772	0.013

PCB Identification Summary for Multicomponent Analytes

Lab Name: Microbac Laboratories, Inc.
 Lab Code: ME
 Lab Sample ID: B102163-BSD1
 Instrument ID: ECD-4
 GC Column: RTX-CLPesticides2

EPA SAMPLE NO.

B102163-BSD1

Contract: IDEMCase No: 17E1497Date Analyzed: 05/25/17

ANALYTE	PEAK	EXPECTED RT	ACTUAL RT	RT WINDOW		CONC µg/mL
				FROM	TO	
Ar 1016	1	5.811	5.813	5.311	6.311	0.496
	2	6.359	6.358	5.859	6.859	0.487
	3	6.919	6.921	6.419	7.419	0.455
	4	7.076	7.076	6.576	7.576	0.517
	5	7.710	7.710	7.210	8.210	0.521
Ar 1221	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1232	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1242	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1248	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1254	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1260	1	9.007	9.007	8.507	9.507	0.470
	2	9.469	9.469	8.969	9.969	0.472
	3	9.690	9.690	9.190	10.190	0.431
	4	10.238	10.240	9.738	10.738	0.463
	5	10.740	10.741	10.240	11.240	0.465
Ar 1262	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
Ar 1268	1	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA
	3	NA	NA	NA	NA	NA
	4	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA
TCMX(SURR)	1	5.029	5.028	4.529	5.529	0.018
DCB(SURR)	1	11.272	11.272	10.772	11.772	0.021



Section A:
GC Semivolatiles
SW-846 8082
Batch / Sequence Raw Data

PREPARATION BENCH SHEET

B103251

Microbac Laboratories, Inc. - Chicagoland

Matrix: Solid

Prepared using: GC Semivolatiles - 3550_P

Printed: 6/19/2017 8:27:38AM

Lab Number	Prepared	Initial (g)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
17E1496-01 8082	05/24/2017 11:56	30.16	10				ICOC ICOC
17E1496-03 8082	05/24/2017 11:56	3.78	10				ICOC ICOC
17E1497-01 8082	05/24/2017 11:56	3.17	10				ICOC ICOC
17E1497-02 8082	05/24/2017 11:56	3.47	10				ICOC ICOC
17E1497-03 8082	05/24/2017 11:56	3.86	10				ICOC ICOC
17E1526-02 8082	05/24/2017 11:56	10.09	10				
17E1577-01 8082	05/24/2017 11:56	10.24	10				
B103251-BLK1	05/24/2017 11:56	30	10				
B103251-BS1	05/24/2017 11:56	30	10	0095098		1000	
B103251-BSD1	05/24/2017 11:56	30	10	0095098		1000	

9794955
140709B
BB07G

Spiking Witnessed By _____ Date _____

Preparation Reviewed By _____ Date _____

Extracts Received By _____ Date _____

Injection Log

Data Directory: D:\MassHunter\Data\M17E25\

Line	Vial	FileName	Mult	SampleName	MiscInfo	Injection Time
1)	150	M17E2501.D	1	RINSE		25 May 2017 09:51 am
2)	1	M17E2502.D	1	SEQ-CCV1	DDT/END 94306	25 May 2017 10:09 am
3)	2	M17E2503.D	1	SEQ-CCV2	PST 0.04 92048	25 May 2017 10:26 am
4)	3	M17E2504.D	1	SEQ-CCV3	CHL 0.25 94872	25 May 2017 10:44 am
5)	4	M17E2505.D	1	SEQ-CCV4	TOX 0.25 90260	25 May 2017 11:01 am
6)	5	M17E2506.D	1	B103275-BLK1		25 May 2017 11:19 am
7)	6	M17E2507.D	1	B103275-BS1		25 May 2017 11:36 am
8)	7	M17E2508.D	1	B103275-BSD1		25 May 2017 11:53 am
9)	8	M17E2509.D	1	17E1317-01		25 May 2017 12:12 pm
10)	9	M17E2510.D	1	17E1317-02		25 May 2017 12:29 pm
11)	10	M17E2511.D	1	17E1317-03		25 May 2017 12:47 pm
12)	150	M17E2512.D	1	RINSE		25 May 2017 01:04 pm
13)	11	M17E2513.D	1	SEQ-CCV5	PST 0.1 93415	25 May 2017 01:22 pm
14)	12	M17E2514.D	1	SEQ-CCV6	CHL 0.5 94873	25 May 2017 01:39 pm
15)	13	M17E2515.D	1	SEQ-CCV7	TOX 0.5 90261	25 May 2017 01:56 pm
16)	14	M17E2516.D	1	SEQ-CCV8	PCB 0.5 94661	25 May 2017 02:14 pm
17)	15	M17E2517.D	1	B103311-BLK1		25 May 2017 02:31 pm
18)	16	M17E2518.D	1	B103311-BS1		25 May 2017 02:49 pm
19)	17	M17E2519.D	1	B103311-BS2		25 May 2017 03:06 pm
20)	18	M17E2520.D	1	17E1476-02		25 May 2017 03:24 pm
21)	19	M17E2521.D	1	17E1557-01		25 May 2017 03:41 pm
22)	20	M17E2522.D	1	17E1578-01		25 May 2017 03:59 pm
23)	21	M17E2523.D	1	17E1579-01		25 May 2017 04:16 pm
24)	22	M17E2524.D	1	17E1592-01		25 May 2017 04:34 pm
25)	23	M17E2525.D	1	B103311-MS1		25 May 2017 04:51 pm
26)	24	M17E2526.D	1	B103311-MSD1		25 May 2017 05:09 pm
27)	25	M17E2527.D	1	B103311-MS2		25 May 2017 05:26 pm
28)	26	M17E2528.D	1	B103311-MSD2		25 May 2017 05:43 pm
29)	150	M17E2529.D	1	RINSE		25 May 2017 06:01 pm
30)	27	M17E2530.D	1	SEQ-CCV9	PST 0.1 93415	25 May 2017 06:18 pm
31)	28	M17E2531.D	1	SEQ-CCVA	CHL 0.25 94872	25 May 2017 06:36 pm
32)	29	M17E2532.D	1	SEQ-CCVB	TOX 0.25 90260	25 May 2017 06:53 pm
33)	30	M17E2533.D	1	SEQ-CCVC	PCB 1.0 94662	25 May 2017 07:11 pm
34)	31	M17E2534.D	1	B103312-BLK1		25 May 2017 07:28 pm
35)	32	M17E2535.D	1	B103312-BS1		25 May 2017 07:45 pm
36)	33	M17E2536.D	1	B103312-BSD1		25 May 2017 08:03 pm
37)	34	M17E2537.D	1	17E1496-02		25 May 2017 08:20 pm
38)	35	M17E2538.D	1	17E1496-04		25 May 2017 08:38 pm
39)	36	M17E2539.D	1	17E1499-02		25 May 2017 08:55 pm
40)	37	M17E2540.D	1	B103251-BLK1		25 May 2017 09:13 pm
41)	38	M17E2541.D	1	B103251-BS1		25 May 2017 09:30 pm
42)	39	M17E2542.D	1	B103251-BSD1		25 May 2017 09:47 pm
43)	40	M17E2543.D	1	17E1496-01		25 May 2017 10:05 pm
44)	41	M17E2544.D	1	17E1496-03		25 May 2017 10:22 pm
45)	42	M17E2545.D	1	17E1497-01		25 May 2017 10:40 pm
46)	43	M17E2546.D	1	17E1497-02		25 May 2017 10:57 pm
47)	44	M17E2547.D	1	17E1497-03		25 May 2017 11:15 pm
48)	45	M17E2548.D	1	17E1526-02		25 May 2017 11:32 pm
49)	46	M17E2549.D	1	17E1577-01		25 May 2017 11:49 pm
50)	150	M17E2550.D	1	RINSE		26 May 2017 12:07 am
51)	47	M17E2551.D	1	SEQ-CCVD	PCB 0.5 94661	26 May 2017 12:24 am
52)	48	M17E2552.D	1	B103364-BLK1		26 May 2017 12:42 am
53)	49	M17E2553.D	1	B103364-BS1		26 May 2017 12:59 am
54)	50	M17E2554.D	1	B103364-BSD1		26 May 2017 01:17 am
55)	51	M17E2555.D	1	17E1689-01		26 May 2017 01:34 am
56)	52	M17E2556.D	1	17E1689-02		26 May 2017 01:51 am
57)	53	M17E2557.D	1	17E1689-03		26 May 2017 02:09 am
58)	54	M17E2558.D	1	17E1689-04		26 May 2017 02:26 am
59)	55	M17E2559.D	1	17E1689-05		26 May 2017 02:43 am
60)	150	M17E2560.D	1	RINSE		26 May 2017 03:01 am
61)	56	M17E2561.D	1	SEQ-CCVE	PCB 1.5 92786	26 May 2017 03:18 am

Fri May 26 12:19:37 2017

ANALYSIS SEQUENCE

S034952

Instrument: ECD-4-F

Calibration ID: UNASSIGNED

Created: 05/25/2017 10:09

Printed: 6/19/2017 9:24:16AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
S034952-CCV1	QC		1		0094306		
S034952-CCV2	QC		2		0092048		
S034952-CCV3	QC		3		0094872		
S034952-CCV4	QC		4		0090260		
B103275-BLK1	QC		5				
B103275-BS1	QC		6				
B103275-BSD1	QC		7				
17E1317-01	8081_TC	A	8				
17E1317-02	8081_TC	A	9				
17E1317-03	8081_TC	A	10				
S034952-CCV5	QC		11		0093415		
S034952-CCV6	QC		12		0094873		
S034952-CCV7	QC		13		0090261		
S034952-CCV8	QC		14		0094661		
B103311-BLK1	QC		15				
B103311-BS1	QC		16				
B103311-BS2	QC		17				
17E1476-02	608	C	18				BatchQC
17E1476-02	608_PCB	C	19				
17E1476-02	608_PEST	C	20				
17E1476-02	8082	C	21				BatchQC
17E1557-01	608	A	22				
17E1578-01	8082	A	23				BatchQC

Samples Loaded By

Date

Data Processed By

Date

ANALYSIS SEQUENCE

S034952

Instrument: ECD-4-F

Calibration ID: UNASSIGNED

Created: 05/25/2017 10:09

Printed: 6/19/2017 9:24:16AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
17E1578-01	608_PCB	A	24				BatchQC
17E1578-01	608	A	25				
17E1579-01	608	A	26				
17E1592-01	8082	G	27				
B103311-MS1	QC		28				
B103311-MSD1	QC		29				
B103311-MS2	QC		30				
B103311-MSD2	QC		31				
S034952-CCV9	QC		32		0093415		
S034952-CCVA	QC		33		0094872		
S034952-CCVB	QC		34		0090260		
S034952-CCVC	QC		35		0094662		
B103312-BLK1	QC		36				
B103312-BS1	QC		37				
B103312-BSD1	QC		38				
17E1496-04	8082_3550	A	39				IDEM Wipes ICOC
17E1499-02	8082_3550	A	40				IDEM Wipes ICOC
B103251-BLK1	QC		41				
B103251-BS1	QC		42				
B103251-BSD1	QC		43				
17E1497-01	8082	A	44				ICOC
17E1497-02	8082	A	45				ICOC
17E1497-03	8082	A	46				ICOC

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

ANALYSIS SEQUENCE

S034952

Instrument: ECD-4-F

Calibration ID: UNASSIGNED

Created: 05/25/2017 10:09

Printed: 6/19/2017 9:24:16AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
17E1577-01	8082	A	47				
S034952-CCVD	QC		48		0094661		
B103364-BLK1	QC		49				
B103364-BS1	QC		50				
B103364-BSD1	QC		51				
17E1689-01	8082	A	52				
17E1689-02	8082	A	53				
17E1689-03	8082	A	54				
17E1689-04	8082	A	55				
17E1689-05	8082	A	56				
S034952-CCVE	QC		57		0092786		

Samples Loaded By

Date

Data Processed By

Date



Section B: GC Semivolatiles SW-846 8082 Sample Raw Data

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2545.D Vial: 42
Acq On : 25 May 2017 10:40 pm Operator: ALS
Sample : 17E1497-01 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 26 08:17:48 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.036	161048301	0.014 ug/mLm3
2) S Decachlorobiphenyl	11.271	224556786	0.025 ug/mLm3
Target Compounds			
3) AR1016peak1	0.000	0	N.D. ug/mLd
4) AR1016peak2	0.000	0	N.D. ug/mLd
5) AR1016peak3	0.000	0	N.D. ug/mLd
6) AR1016peak4	0.000	0	N.D. ug/mLd
7) AR1016peak5	0.000	0	N.D. ug/mLd
8) AR1260peak1	0.000	0	N.D. ug/mLd
9) AR1260peak2	0.000	0	N.D. ug/mLd
10) AR1260peak3	0.000	0	N.D. ug/mLd
11) AR1260peak4	0.000	0	N.D. ug/mLd
12) AR1260peak5	0.000	0	N.D. ug/mLd

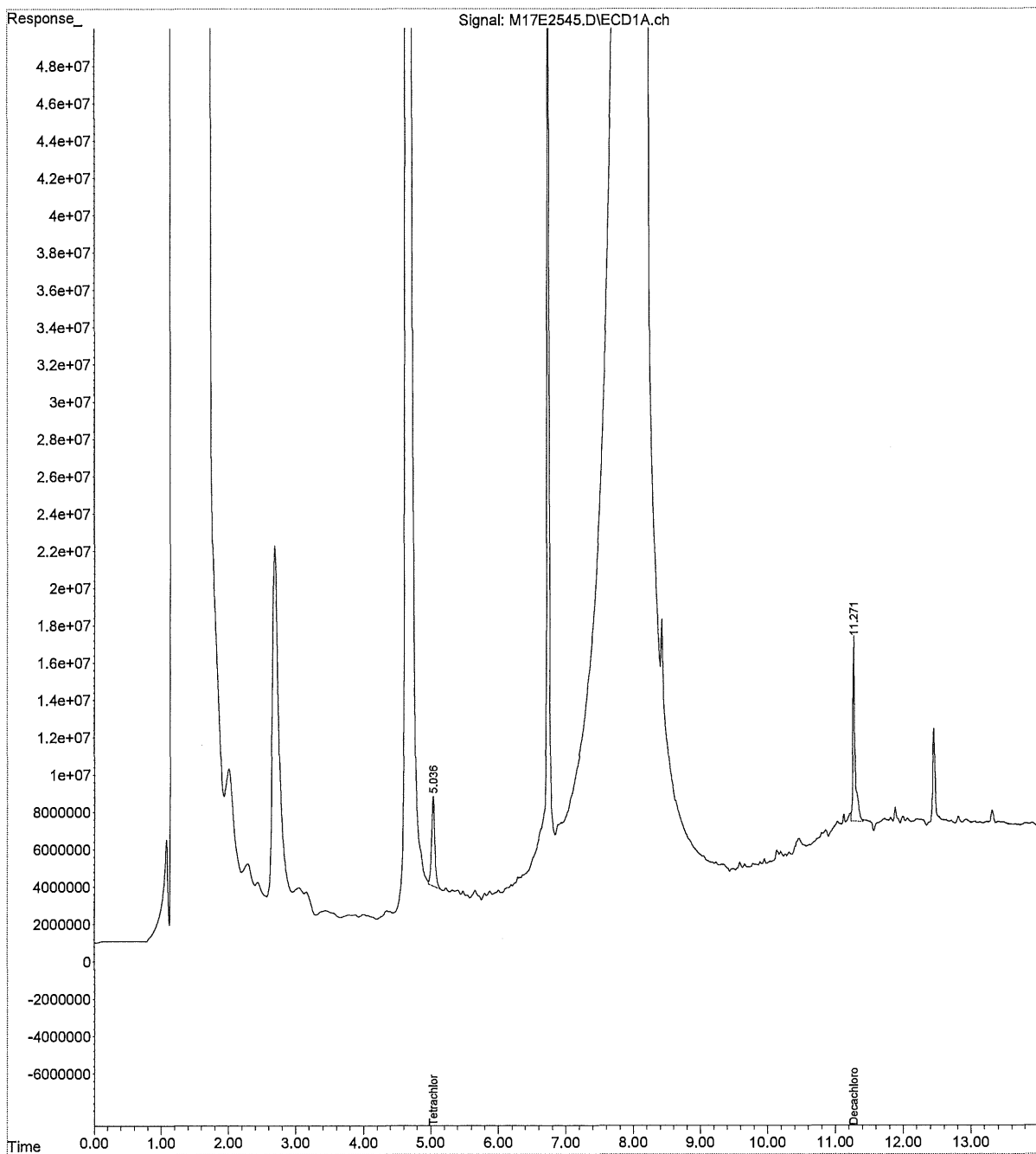
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2545.D Vial: 42
 Acq On : 25 May 2017 10:40 pm Operator: ALS
 Sample : 17E1497-01 Inst : ECD 4
 Misc : Multiplr: 1.00
 Quant Time: May 26 08:17:48 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2546.D Vial: 43
Acq On : 25 May 2017 10:57 pm Operator: ALS
Sample : 17E1497-02 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 26 08:18:04 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.028	185975238	0.016 ug/mL
2) S Decachlorobiphenyl	11.272	161780746	0.018 ug/mLm3
Target Compounds			
3) AR1016peak1	5.839	3717135	N.D. ug/mL
4) AR1016peak2	0.000	0	N.D. ug/mLd
5) AR1016peak3	0.000	0	N.D. ug/mLd
6) AR1016peak4	0.000	0	N.D. ug/mLd
7) AR1016peak5	0.000	0	N.D. ug/mLd
8) AR1260peak1	0.000	0	N.D. ug/mLd
9) AR1260peak2	0.000	0	N.D. ug/mLd
10) AR1260peak3	0.000	0	N.D. ug/mLd
11) AR1260peak4	0.000	0	N.D. ug/mLd
12) AR1260peak5	0.000	0	N.D. ug/mLd

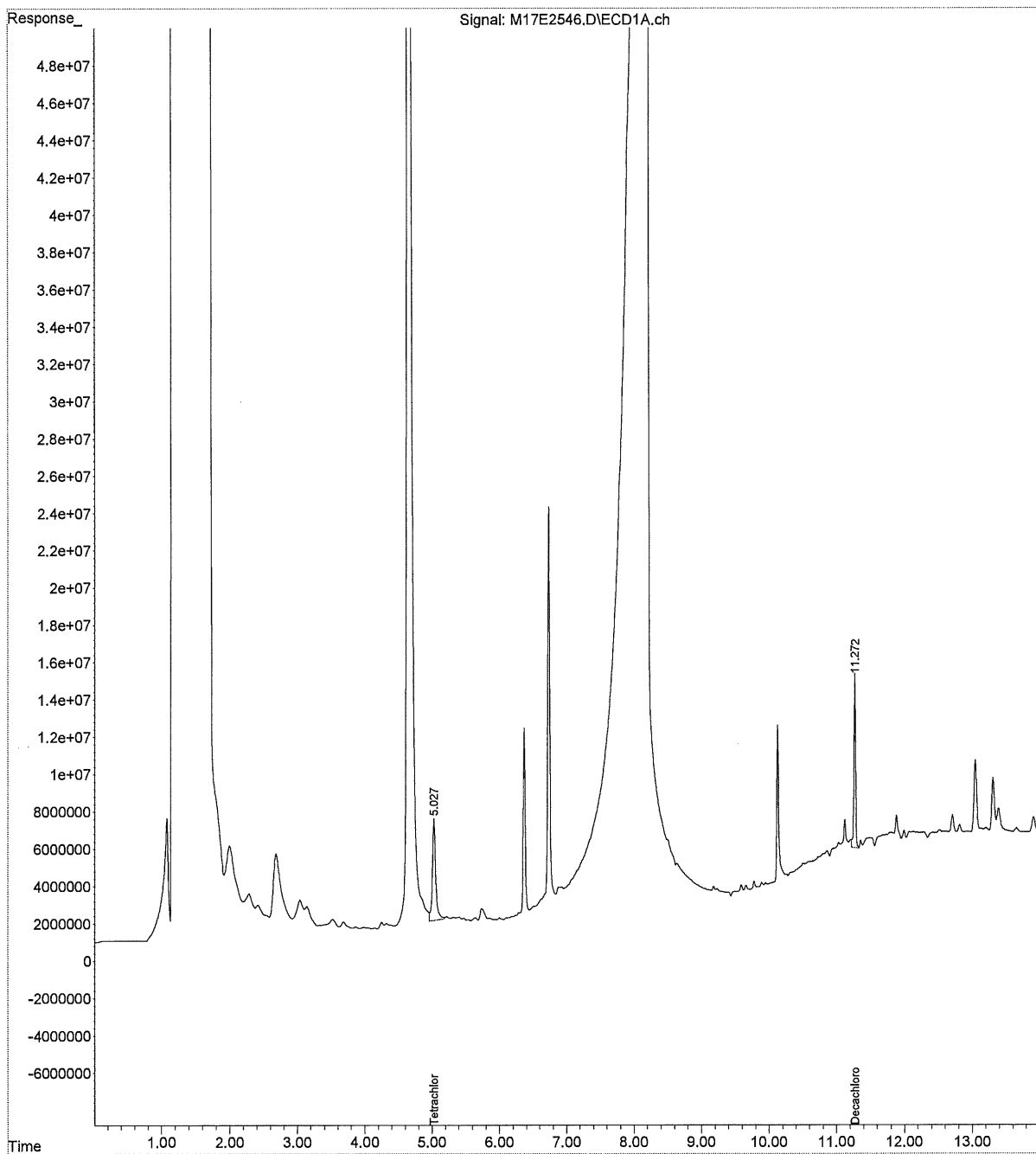
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2546.D Vial: 43
 Acq On : 25 May 2017 10:57 pm Operator: ALS
 Sample : 17E1497-02 Inst : ECD 4
 Misc : Multiplr: 1.00
 Quant Time: May 26 08:18:04 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2547.D Vial: 44
Acq On : 25 May 2017 11:15 pm Operator: ALS
Sample : 17E1497-03 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 26 08:18:20 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.034	166298944	0.015 ug/mLm3
2) S Decachlorobiphenyl	11.275	349991462	0.039 ug/mLm3
Target Compounds			
3) AR1016peak1	0.000	0	N.D. ug/mLd
4) AR1016peak2	0.000	0	N.D. ug/mLd
5) AR1016peak3	0.000	0	N.D. ug/mLd
6) AR1016peak4	0.000	0	N.D. ug/mLd
7) AR1016peak5	0.000	0	N.D. ug/mLd
8) AR1260peak1	0.000	0	N.D. ug/mLd
9) AR1260peak2	0.000	0	N.D. ug/mLd
10) AR1260peak3	0.000	0	N.D. ug/mLd
11) AR1260peak4	0.000	0	N.D. ug/mLd
12) AR1260peak5	0.000	0	N.D. ug/mLd

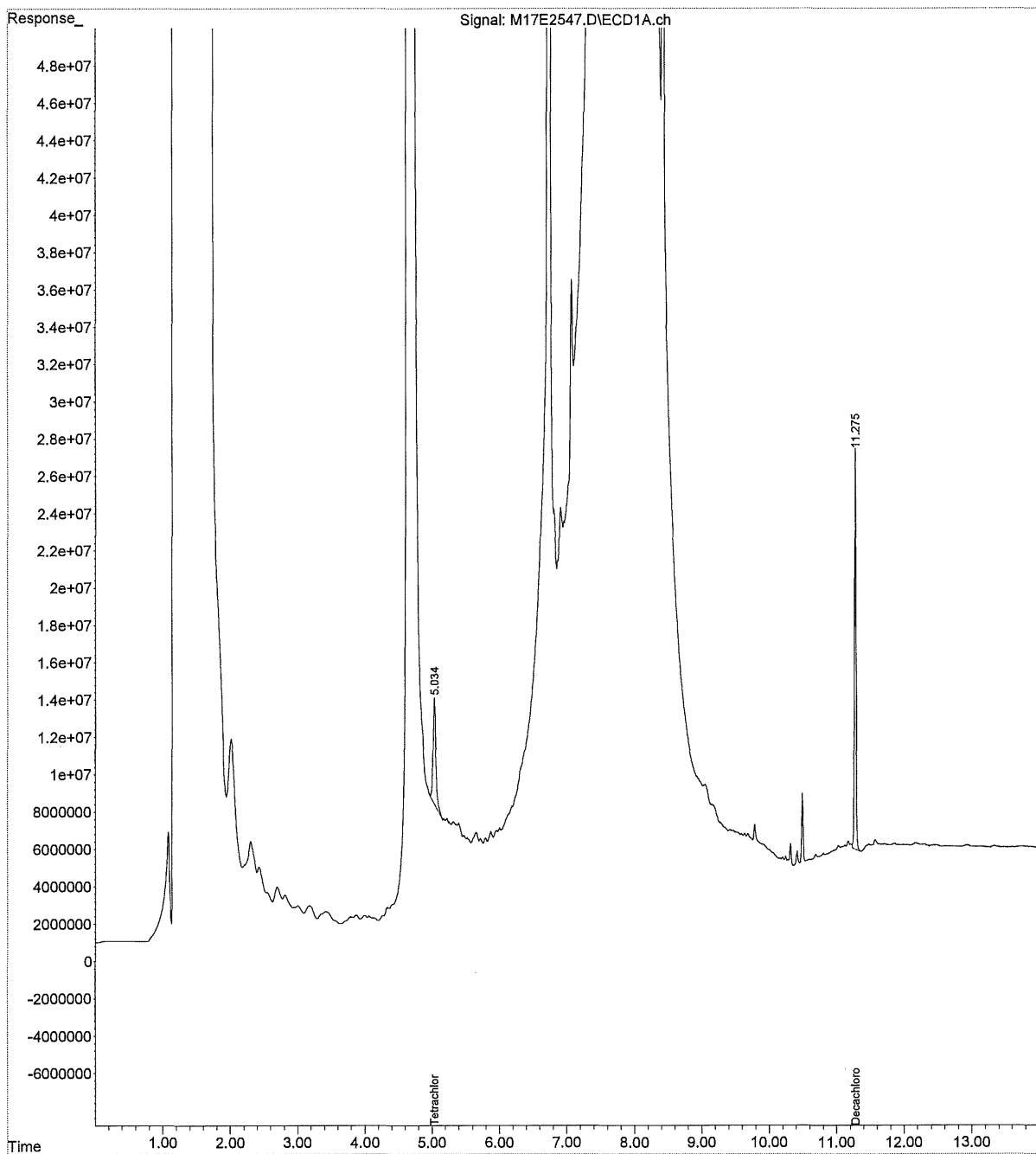
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2547.D Vial: 44
 Acq On : 25 May 2017 11:15 pm Operator: ALS
 Sample : 17E1497-03 Inst : ECD 4
 Misc : Multiplr: 1.00
 Quant Time: May 26 08:18:20 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M





Section C:
GC Semivolatiles
SW-846 8082
QC Sample Raw Data

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2540.D Vial: 37
Acq On : 25 May 2017 09:13 pm Operator: ALS
Sample : B103251-BLK1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 26 08:16:27 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.032	186589523	0.016 ug/mL
2) S Decachlorobiphenyl	11.270	227925237	0.025 ug/mLm3
Target Compounds			
3) AR1016peak1	5.866	1523495	N.D. ug/mL
4) AR1016peak2	0.000	0	N.D. ug/mLd
5) AR1016peak3	0.000	0	N.D. ug/mLd
6) AR1016peak4	0.000	0	N.D. ug/mLd
7) AR1016peak5	0.000	0	N.D. ug/mLd
8) AR1260peak1	0.000	0	N.D. ug/mLd
9) AR1260peak2	0.000	0	N.D. ug/mLd
10) AR1260peak3	0.000	0	N.D. ug/mLd
11) AR1260peak4	0.000	0	N.D. ug/mLd
12) AR1260peak5	0.000	0	N.D. ug/mLd

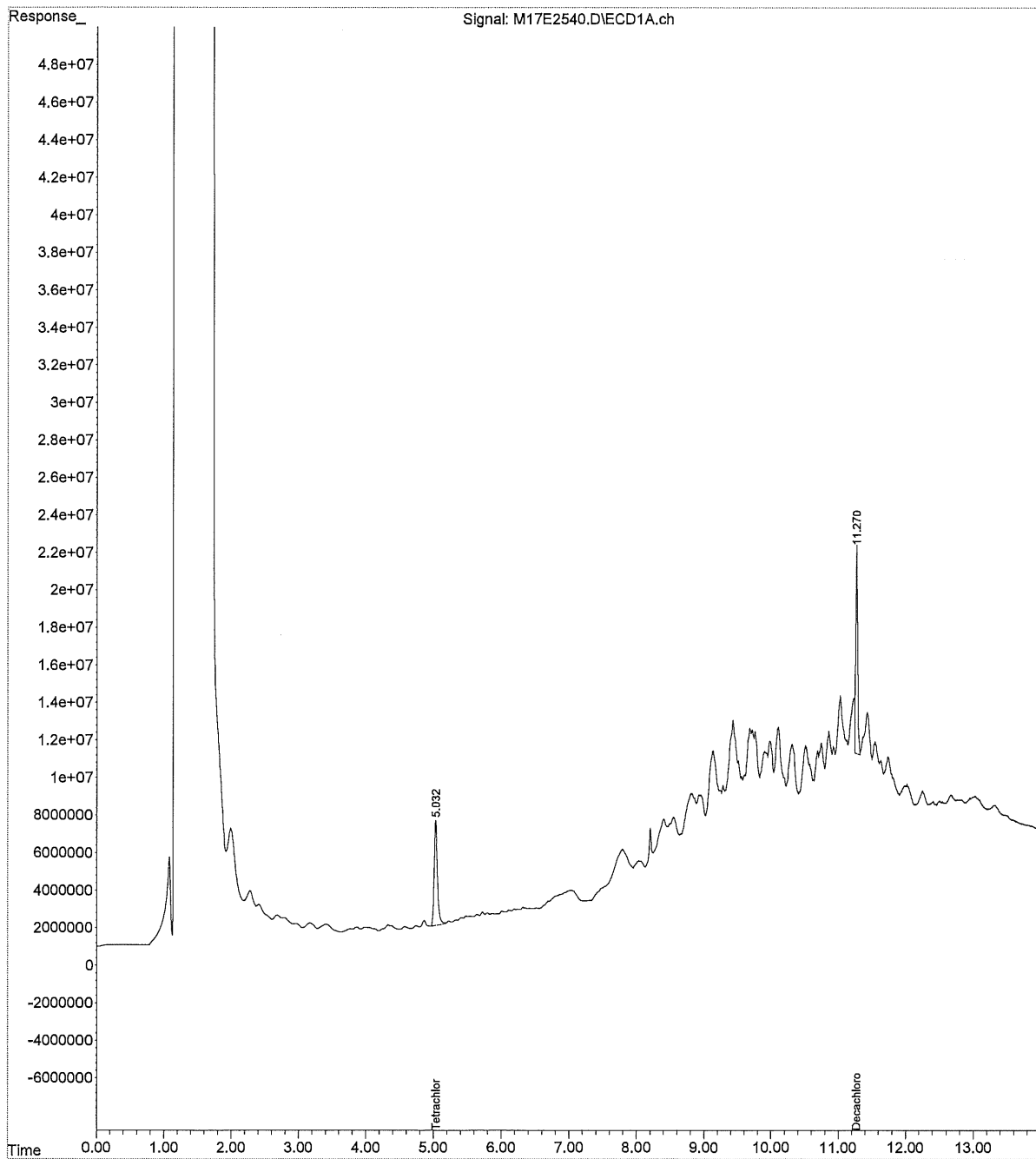
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2540.D Vial: 37
 Acq On : 25 May 2017 09:13 pm Operator: ALS
 Sample : B103251-BLK1 Inst : ECD 4
 Misc : Multiplr: 1.00
 Quant Time: May 26 08:16:27 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2541.D Vial: 38
Acq On : 25 May 2017 09:30 pm Operator: ALS
Sample : B103251-BS1 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 26 08:16:43 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.035	154951430	0.014 ug/mL
2) S Decachlorobiphenyl	11.272	118085737	0.013 ug/mLm3
Target Compounds			
3) AR1016peak1	5.819	61324700	0.338 ug/mL
4) AR1016peak2	6.363	118050410	0.329 ug/mL
5) AR1016peak3	6.925	248127062	0.299 ug/mL
6) AR1016peak4	7.080	112044031	0.342 ug/mL
7) AR1016peak5	7.712	98248373	0.345 ug/mL
8) AR1260peak1	9.008	175187793	0.282 ug/mL
9) AR1260peak2	9.470	67545924	0.297 ug/mL
10) AR1260peak3	9.691	126671407	0.260 ug/mL
11) AR1260peak4	10.240	298552265	0.297 ug/mL
12) AR1260peak5	10.741	75634319	0.302 ug/mLm3

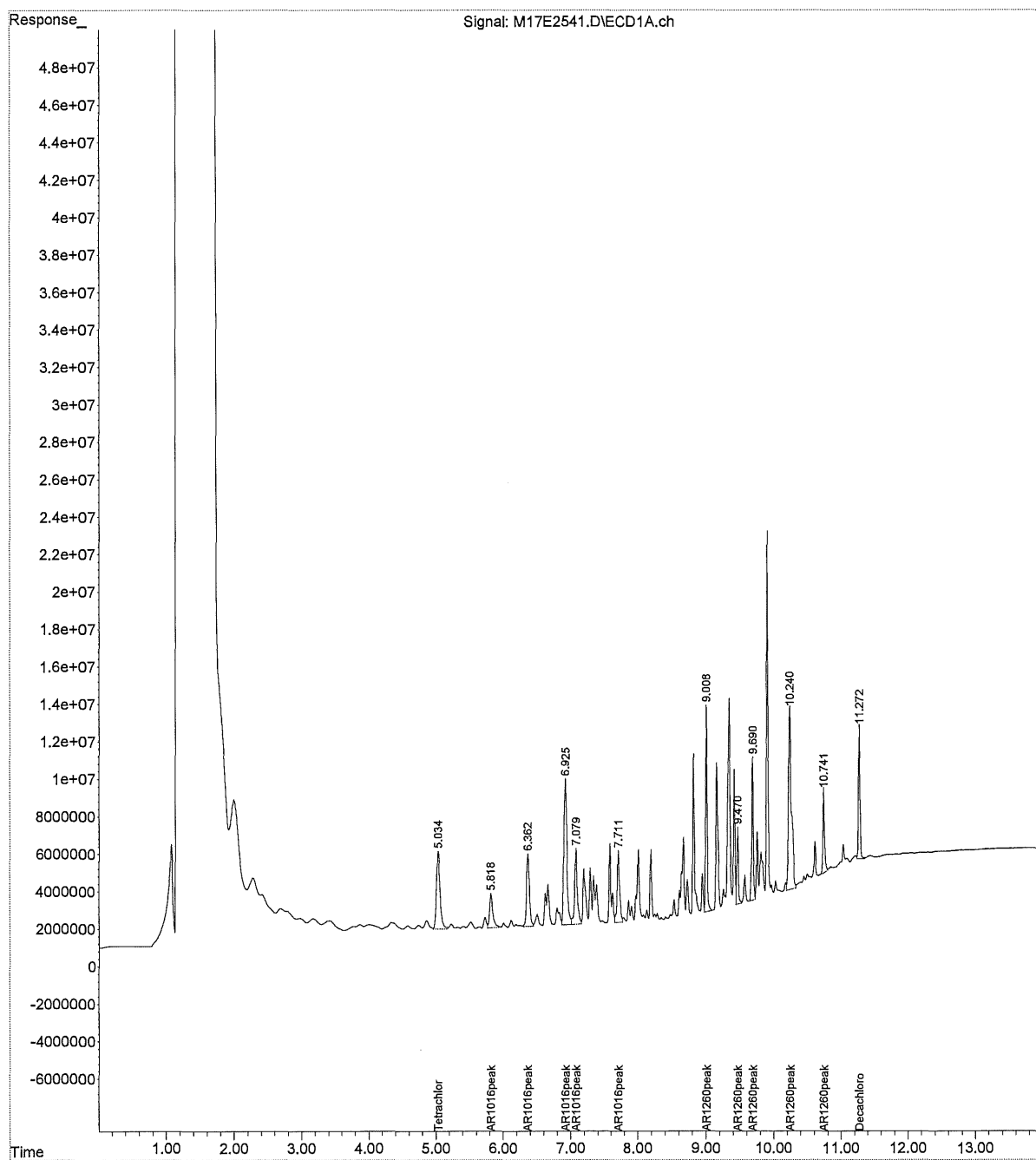
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2541.D Vial: 38
 Acq On : 25 May 2017 09:30 pm Operator: ALS
 Sample : B103251-BS1 Inst : ECD 4
 Misc : Multiplr: 1.00
 Quant Time: May 26 08:16:43 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2542.D Vial: 39
Acq On : 25 May 2017 09:47 pm Operator: ALS
Sample : B103251-BS01 Inst : ECD 4
Misc : Multiplr: 1.00
Quant Time: May 26 08:16:59 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.028	207416909	0.018 ug/mL
2) S Decachlorobiphenyl	11.272	190962554	0.021 ug/mLm3
Target Compounds			
3) AR1016peak1	5.813	87928648	0.496 ug/mL
4) AR1016peak2	6.358	173665379	0.487 ug/mL
5) AR1016peak3	6.921	377888987	0.455 ug/mL
6) AR1016peak4	7.076	168683450	0.517 ug/mL
7) AR1016peak5	7.710	148056697	0.521 ug/mLm3
8) AR1260peak1	9.007	288881715	0.470 ug/mL
9) AR1260peak2	9.469	108475070	0.472 ug/mL
10) AR1260peak3	9.690	210960267	0.431 ug/mL
11) AR1260peak4	10.240	465438136	0.463 ug/mL
12) AR1260peak5	10.741	119009733	0.465 ug/mLm3

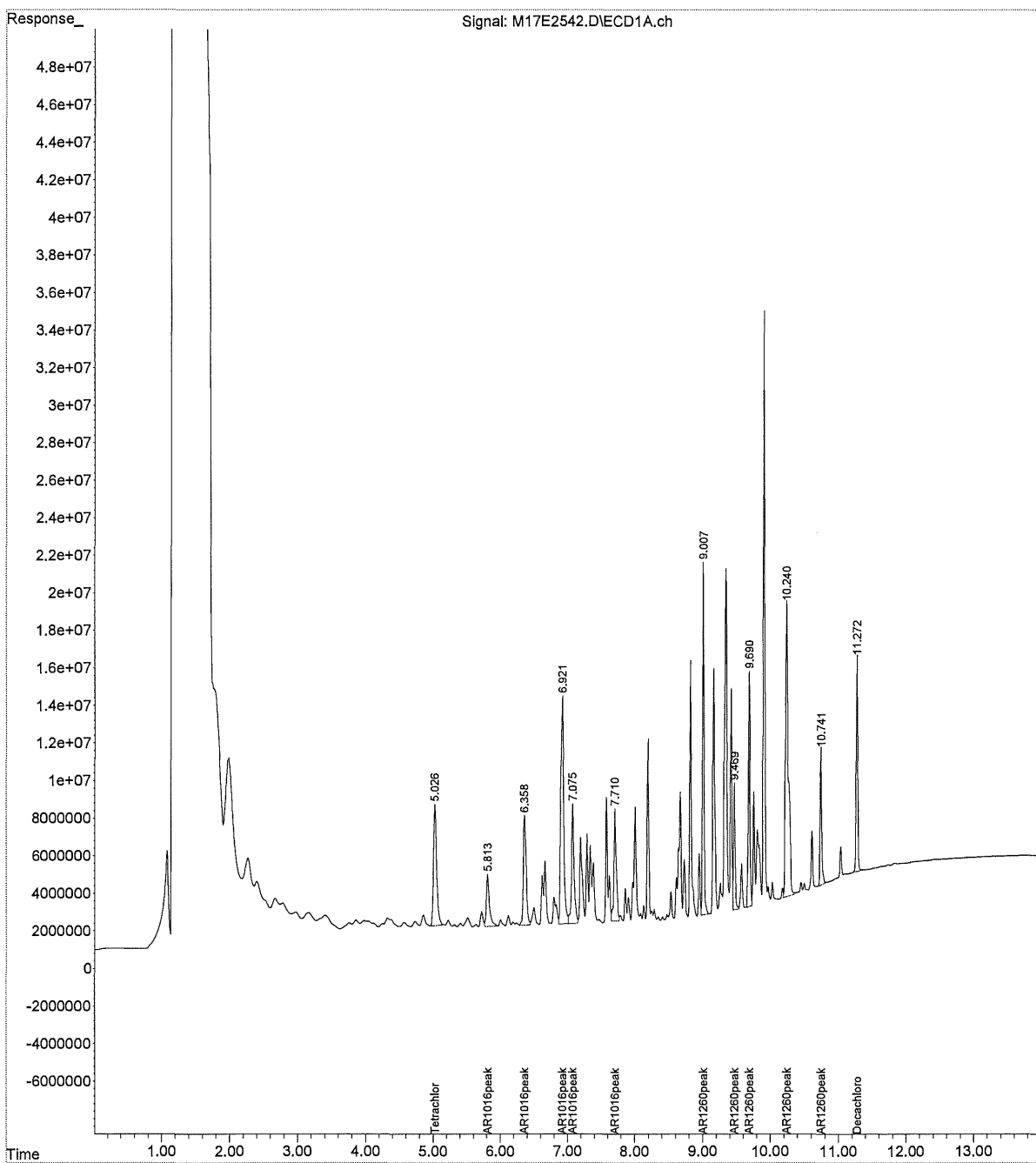
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2542.D Vial: 39
 Acq On : 25 May 2017 09:47 pm Operator: ALS
 Sample : B103251-BSD1 Inst : ECD 4
 Misc : Multiplr: 1.00
 Quant Time: May 26 08:16:59 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M





Section D:
GC Semivolatiles
SW-846 8082
Calibration Raw Data

Response Factor Report ECD 4

Method Path : D:\MassHunter\GCMS\1\methods\
Method File : MPCB0131.M
Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
Last Update : Wed Feb 01 08:47:57 2017
Response Via : Initial Calibration

Calibration Files

0.05=M17A3102.D 0.10=M17A3103.D 0.20=M17A3104.D 0.5 =M17A3105.D 1.0 =M17A3106.D 1.5 =M17A3107.D
2.0 =M17A3108.D

Compound		0.05	0.10	0.20	0.5	1.0	1.5	2.0	Avg	%RSD:r^2	
1) Lin	Tetrachloro-m-...	10.822	10.578	10.357	11.558	11.572	11.743	11.632	11.180	E9	1.000
2) Lin	Decachlorobiph...	8.396	8.567	8.469	9.006	9.078	9.313	8.970	8.828	E9	0.999
3) Lin	AR1016peak1	2.651	2.005	1.765	1.781	1.723	1.793	1.669	1.913	E8	0.998
4) Lin	AR1016peak2	3.538	3.645	3.504	3.593	3.527	3.682	3.436	3.561	E8	0.998
5) Lin	AR1016peak3	7.954	7.954	7.870	8.279	8.287	8.714	8.087	8.163	E8	0.998
6) Lin	AR1016peak4	3.487	3.192	3.102	3.282	3.236	3.399	3.142	3.263	E8	0.997
7) Lin	AR1016peak5	3.149	2.640	2.780	2.833	2.802	2.969	2.755	2.847	E8	0.998
8) Lin	AR1260peak1	6.106	6.343	5.964	6.042	6.038	6.538	5.851	6.126	E8	0.995
9) Lin	AR1260peak2	2.275	2.036	2.167	2.304	2.301	2.375	2.303	2.252	E8	1.000
10) Lin	AR1260peak3	4.443	4.476	4.541	4.977	4.983	4.987	4.871	4.754	E8	1.000
11) Lin	AR1260peak4	1.204	1.007	0.883	1.026	1.025	0.992	1.001	1.020	E9	1.000
12) Lin	AR1260peak5	1.917	2.180	2.097	2.711	2.765	2.408	2.724	2.400	E8	0.993

12) Lin = Out of Range

MPCB0131.M Thu Feb 02 08:15:13 2017

D:\MassHunter\GCMS\1\methods\MPCB0131.M\calfit.txt

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3102.D Vial: 1
Acq On : 31 Jan 2017 04:38 pm Operator: als
Sample : SEQ-CAL1 Inst : ECD 4
Misc : pcb 0.05 74808 Multiplr: 1.00
Quant Time: Feb 01 08:19:20 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.311	21643238	0.001 ug/mLm3
2) S Decachlorobiphenyl	11.546	16792032	0.002 ug/mLm3
Target Compounds			
3) AR1016peak1	6.077	13255069	0.029 ug/mL
4) AR1016peak2	6.619	17689001	0.026 ug/mLm3
5) AR1016peak3	7.171	39769204	0.037 ug/mL
6) AR1016peak4	7.324	17433894	0.037 ug/mLm3
7) AR1016peak5	7.959	15744441	0.035 ug/mL
8) AR1260peak1	9.250	30531769	0.047 ug/mL
9) AR1260peak2	9.713	11373226	0.045 ug/mLm3
10) AR1260peak3	9.935	22217456	0.031 ug/mLm3
11) AR1260peak4	10.482	60187663	0.030 ug/mL
12) AR1260peak5	10.986	9584099	0.041 ug/mLm3

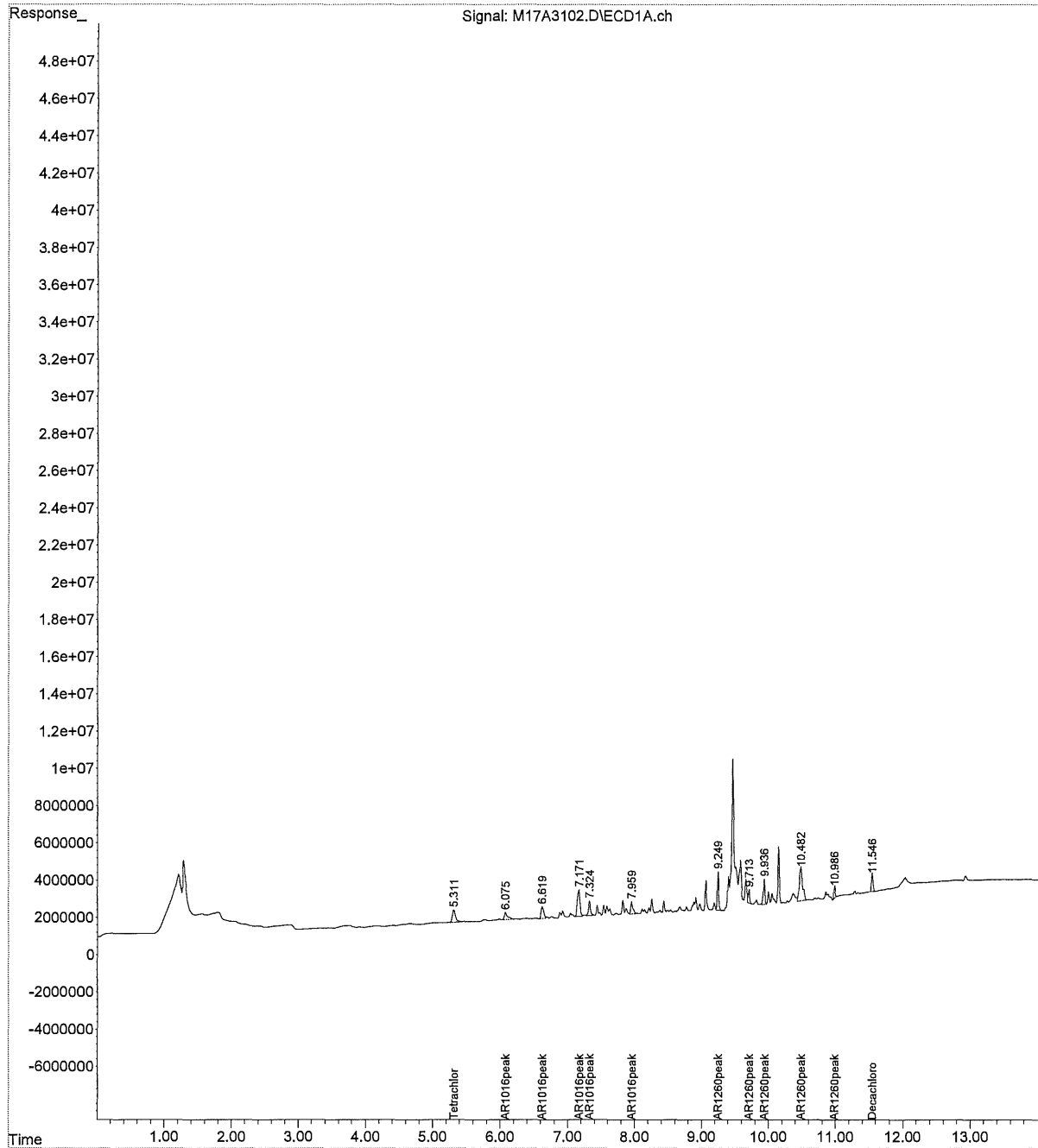
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3102.D Vial: 1
 Acq On : 31 Jan 2017 04:38 pm Operator: als
 Sample : SEQ-CAL1 Inst : ECD 4
 Misc : pcb 0.05 74808 Multiplr: 1.00
 Quant Time: Feb 01 08:19:20 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Tue Jan 31 16:05:31 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3103.D Vial: 2
Acq On : 31 Jan 2017 04:56 pm Operator: als
Sample : SEQ-CAL2 Inst : ECD 4
Misc : pcb 0.1 74809 Multiplr: 1.00
Quant Time: Feb 01 08:19:37 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.316	42312596	0.003 ug/mL
2) S Decachlorobiphenyl	11.544	34267407	0.004 ug/mLm3
Target Compounds			
3) AR1016peak1	6.078	20052381	0.068 ug/mL
4) AR1016peak2	6.620	36452492	0.079 ug/mLm3
5) AR1016peak3	7.171	79544605	0.085 ug/mL
6) AR1016peak4	7.326	31915541	0.082 ug/mL
7) AR1016peak5	7.959	26401233	0.073 ug/mL
8) AR1260peak1	9.248	63428875	0.101 ug/mL
9) AR1260peak2	9.712	20362178	0.087 ug/mLm3
10) AR1260peak3	9.934	44759476	0.080 ug/mLm3
11) AR1260peak4	10.482	100746013	0.075 ug/mL
12) AR1260peak5	10.983	21803672	0.093 ug/mL

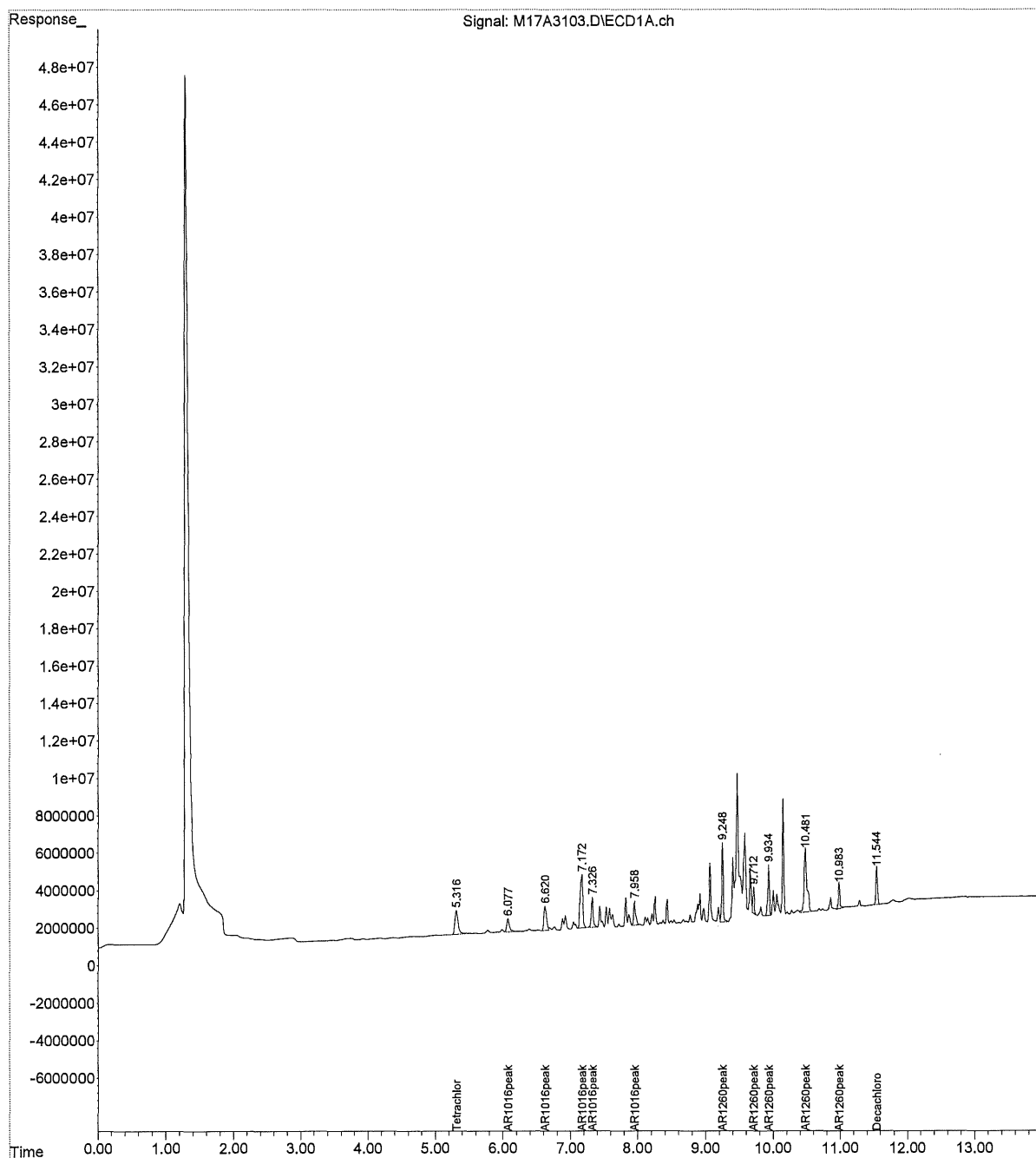
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3103.D Vial: 2
 Acq On : 31 Jan 2017 04:56 pm Operator: als
 Sample : SEQ-CAL2 Inst : ECD 4
 Misc : pcb 0.1 74809 Multiplr: 1.00
 Quant Time: Feb 01 08:19:37 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Tue Jan 31 16:05:31 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3104.D Vial: 3
Acq On : 31 Jan 2017 05:14 pm Operator: als
Sample : SEQ-CAL3 Inst : ECD 4
Misc : pcb 0.2 74810 Multiplr: 1.00
Quant Time: Feb 01 08:19:53 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.314	82855778	0.007 ug/mL
2) S Decachlorobiphenyl	11.544	67750895	0.008 ug/mL
Target Compounds			
3) AR1016peak1	6.077	35306853	0.157 ug/mL
4) AR1016peak2	6.620	70085285	0.173 ug/mL
5) AR1016peak3	7.171	157397819	0.178 ug/mLm3
6) AR1016peak4	7.325	62046442	0.175 ug/mLm3
7) AR1016peak5	7.957	55599713	0.178 ug/mL
8) AR1260peak1	9.248	119276285	0.193 ug/mL
9) AR1260peak2	9.711	43337017	0.195 ug/mLm3
10) AR1260peak3	9.933	90825253	0.180 ug/mL
11) AR1260peak4	10.482	176665980	0.158 ug/mLm3
12) AR1260peak5	10.982	41938631	0.179 ug/mL

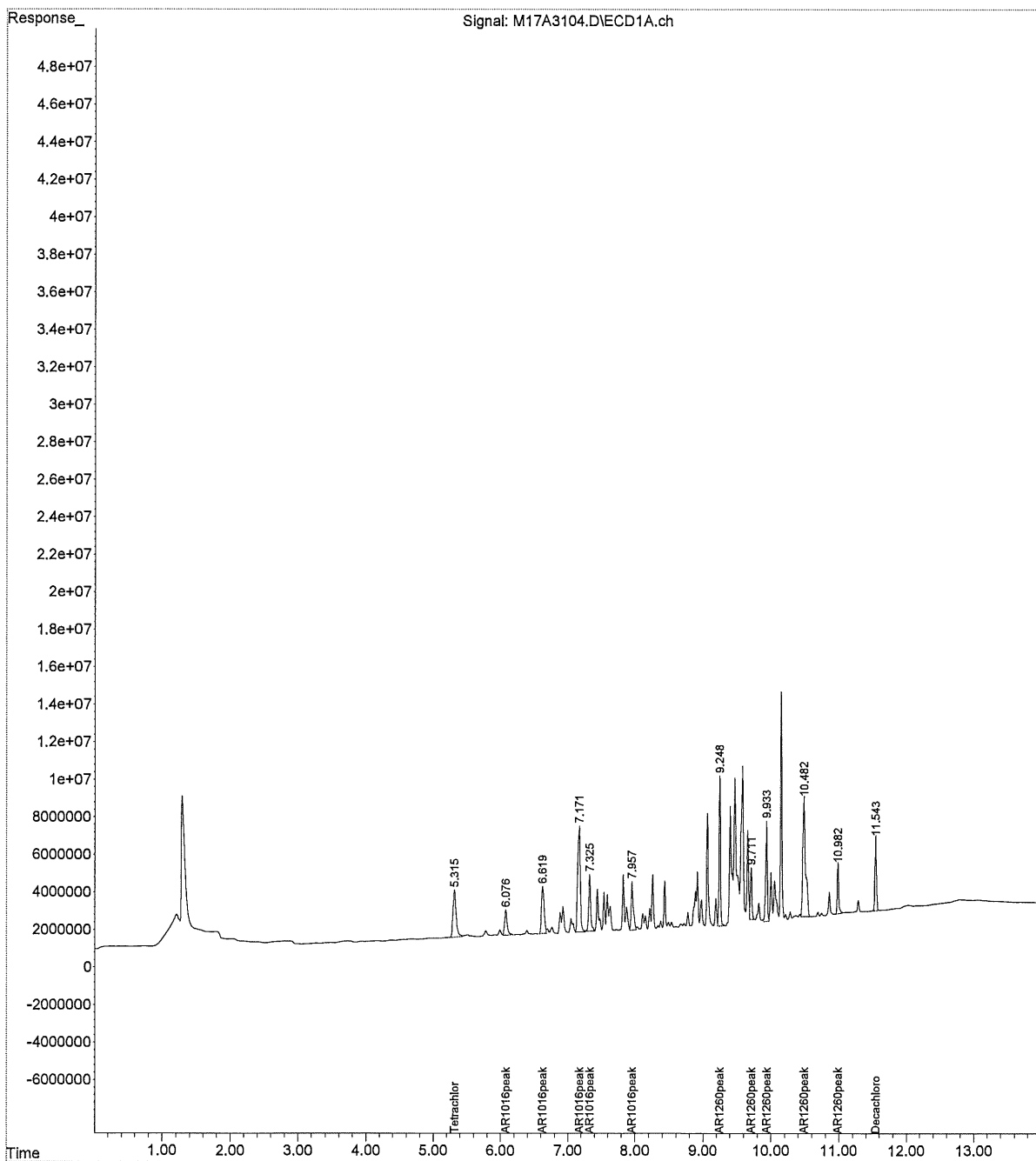
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3104.D Vial: 3
 Acq On : 31 Jan 2017 05:14 pm Operator: als
 Sample : SEQ-CAL3 Inst : ECD 4
 Misc : pcb 0.2 74810 Multiplr: 1.00
 Quant Time: Feb 01 08:19:53 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Tue Jan 31 16:05:31 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3105.D Vial: 4
Acq On : 31 Jan 2017 05:31 pm Operator: als
Sample : SEQ-CAL4 Inst : ECD 4
Misc : pcb 0.5 87655 Multiplr: 1.00
Quant Time: Feb 01 08:20:09 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.313	231161108	0.019 ug/mL
2) S Decachlorobiphenyl	11.543	180111411	0.021 ug/mL
Target Compounds			
3) AR1016peak1	6.075	89061152	0.470 ug/mL
4) AR1016peak2	6.620	179666560	0.482 ug/mL
5) AR1016peak3	7.170	413928229	0.486 ug/mL
6) AR1016peak4	7.324	164104604	0.490 ug/mL
7) AR1016peak5	7.957	141646034	0.486 ug/mL
8) AR1260peak1	9.248	302076174	0.494 ug/mL
9) AR1260peak2	9.711	115201910	0.532 ug/mLm3
10) AR1260peak3	9.933	248873220	0.524 ug/mL
11) AR1260peak4	10.481	513126493	0.530 ug/mL
12) AR1260peak5	10.982	135550158	0.578 ug/mL

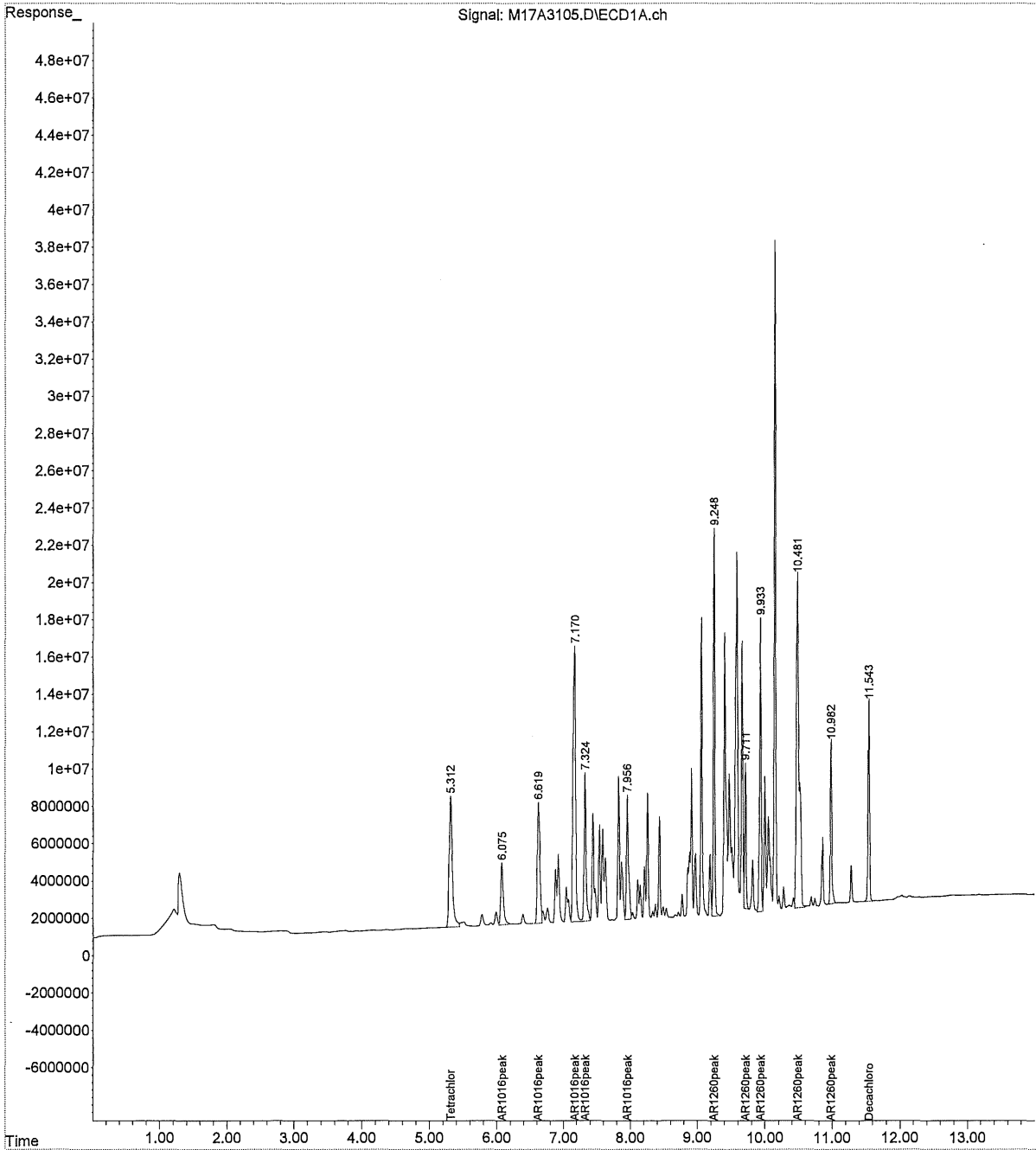
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(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3105.D Vial: 4
 Acq On : 31 Jan 2017 05:31 pm Operator: als
 Sample : SEQ-CAL4 Inst : ECD 4
 Misc : pcb 0.5 87655 Multiplr: 1.00
 Quant Time: Feb 01 08:20:09 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Tue Jan 31 16:05:31 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3106.D Vial: 5
Acq On : 31 Jan 2017 05:49 pm Operator: als
Sample : SEQ-CAL5 Inst : ECD 4
Misc : pcb 1.0 87707 Multiplr: 1.00
Quant Time: Feb 01 08:20:25 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.312	462882077	0.039 ug/mL
2) S Decachlorobiphenyl	11.544	363138077	0.042 ug/mL
Target Compounds			
3) AR1016peak1	6.075	172277564	0.955 ug/mL
4) AR1016peak2	6.619	352661554	0.969 ug/mL
5) AR1016peak3	7.169	828659101	0.983 ug/mL
6) AR1016peak4	7.324	323573984	0.983 ug/mL
7) AR1016peak5	7.957	280229750	0.984 ug/mL
8) AR1260peak1	9.247	603809786	0.990 ug/mL
9) AR1260peak2	9.711	230075166	1.070 ug/mLm3
10) AR1260peak3	9.933	498294613	1.067 ug/mL
11) AR1260peak4	10.482	1024524951	1.096 ug/mLm3
12) AR1260peak5	10.982	276528410	1.180 ug/mL

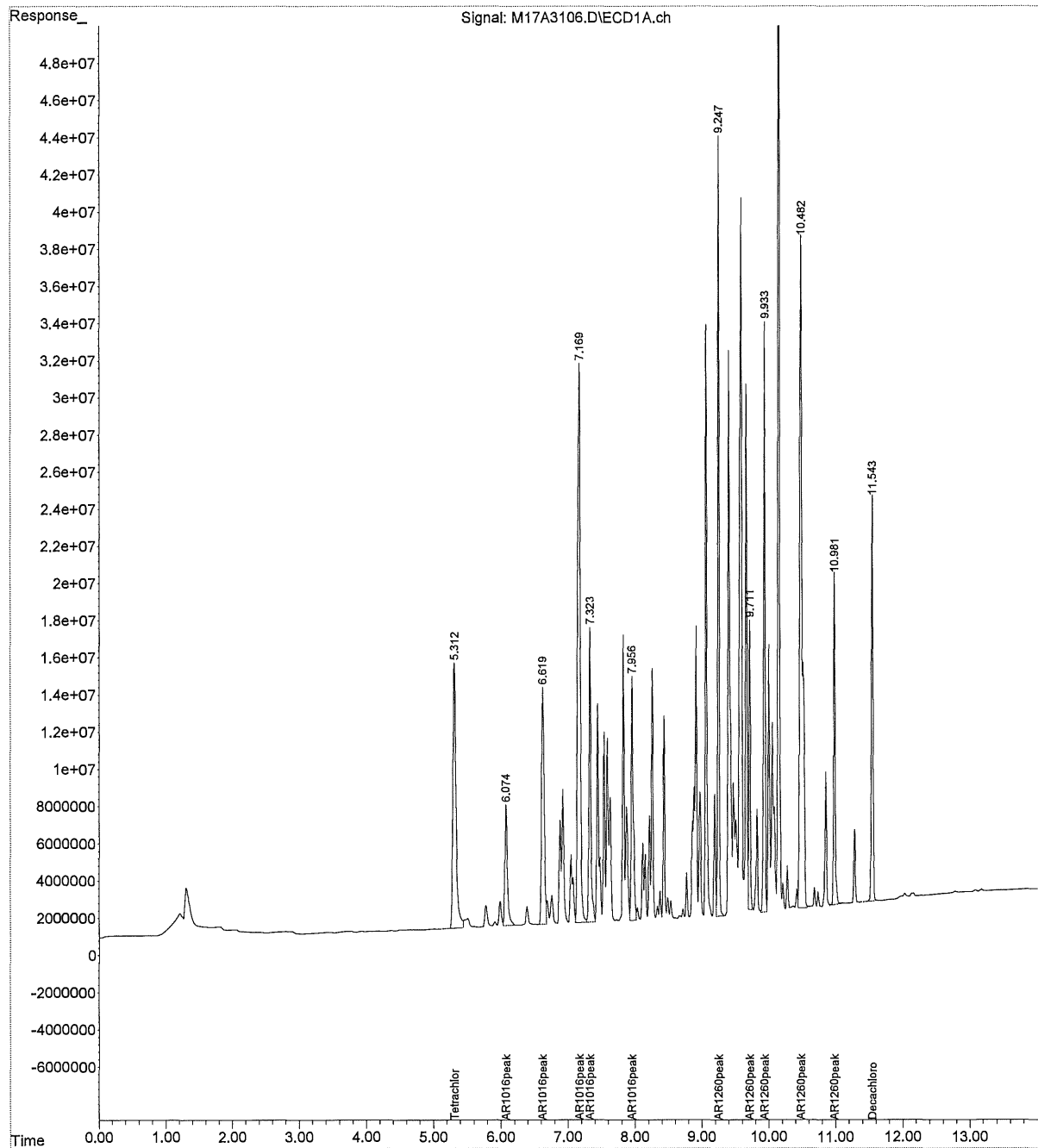
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3106.D Vial: 5
 Acq On : 31 Jan 2017 05:49 pm Operator: als
 Sample : SEQ-CAL5 Inst : ECD 4
 Misc : pcb 1.0 87707 Multiplr: 1.00
 Quant Time: Feb 01 08:20:25 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Tue Jan 31 16:05:31 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3107.D Vial: 6
Acq On : 31 Jan 2017 06:07 pm Operator: als
Sample : SEQ-CAL6 Inst : ECD 4
Misc : pcb 1.5 82319 Multiplr: 1.00
Quant Time: Feb 01 08:20:41 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.312	704577500	0.060 ug/mL
2) S Decachlorobiphenyl	11.543	558793520	0.065 ug/mL
Target Compounds			
3) AR1016peak1	6.074	268964634	1.518 ug/mL
4) AR1016peak2	6.619	552229910	1.531 ug/mL
5) AR1016peak3	7.170	1307025946	1.557 ug/mL
6) AR1016peak4	7.324	509865633	1.559 ug/mL
7) AR1016peak5	7.957	445294910	1.576 ug/mL
8) AR1260peak1	9.247	980705551	1.610 ug/mL
9) AR1260peak2	9.711	356248894	1.660 ug/mL
10) AR1260peak3	9.932	748122143	1.611 ug/mL
11) AR1260peak4	10.481	1488068716	1.608 ug/mL
12) AR1260peak5	10.981	361164740	1.541 ug/mL

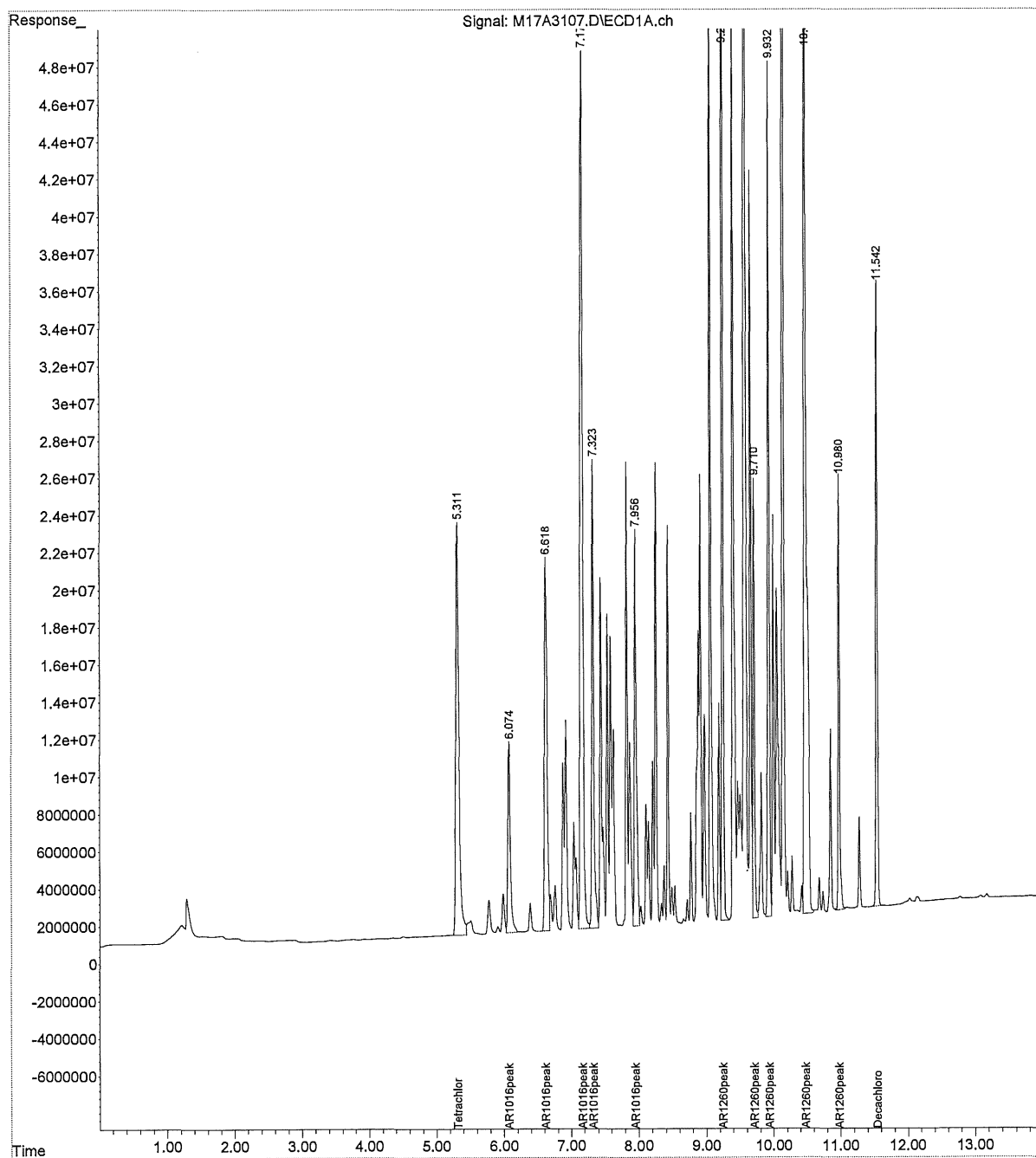
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3107.D Vial: 6
 Acq On : 31 Jan 2017 06:07 pm Operator: als
 Sample : SEQ-CAL6 Inst : ECD 4
 Misc : pcb 1.5 82319 Multiplr: 1.00
 Quant Time: Feb 01 08:20:41 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Tue Jan 31 16:05:31 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3108.D Vial: 7
Acq On : 31 Jan 2017 06:24 pm Operator: als
Sample : SEQ-CAL7 Inst : ECD 4
Misc : pcb 2.0 88003 Multiplr: 1.00
Quant Time: Feb 01 08:20:57 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Tue Jan 31 16:05:31 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.314	930530270	0.080 ug/mL
2) S Decachlorobiphenyl	11.543	717603867	0.084 ug/mL
Target Compounds			
3) AR1016peak1	6.076	333763358	1.895 ug/mL
4) AR1016peak2	6.620	687242048	1.911 ug/mL
5) AR1016peak3	7.170	1617321683	1.929 ug/mL
6) AR1016peak4	7.324	628420096	1.925 ug/mL
7) AR1016peak5	7.957	550945548	1.955 ug/mL
8) AR1260peak1	9.247	1170253971	1.921 ug/mL
9) AR1260peak2	9.711	460648207	2.149 ug/mL
10) AR1260peak3	9.933	974151673	2.103 ug/mL
11) AR1260peak4	10.480	2002335148	2.177 ug/mLm3
12) AR1260peak5	10.981	544807352	2.324 ug/mL

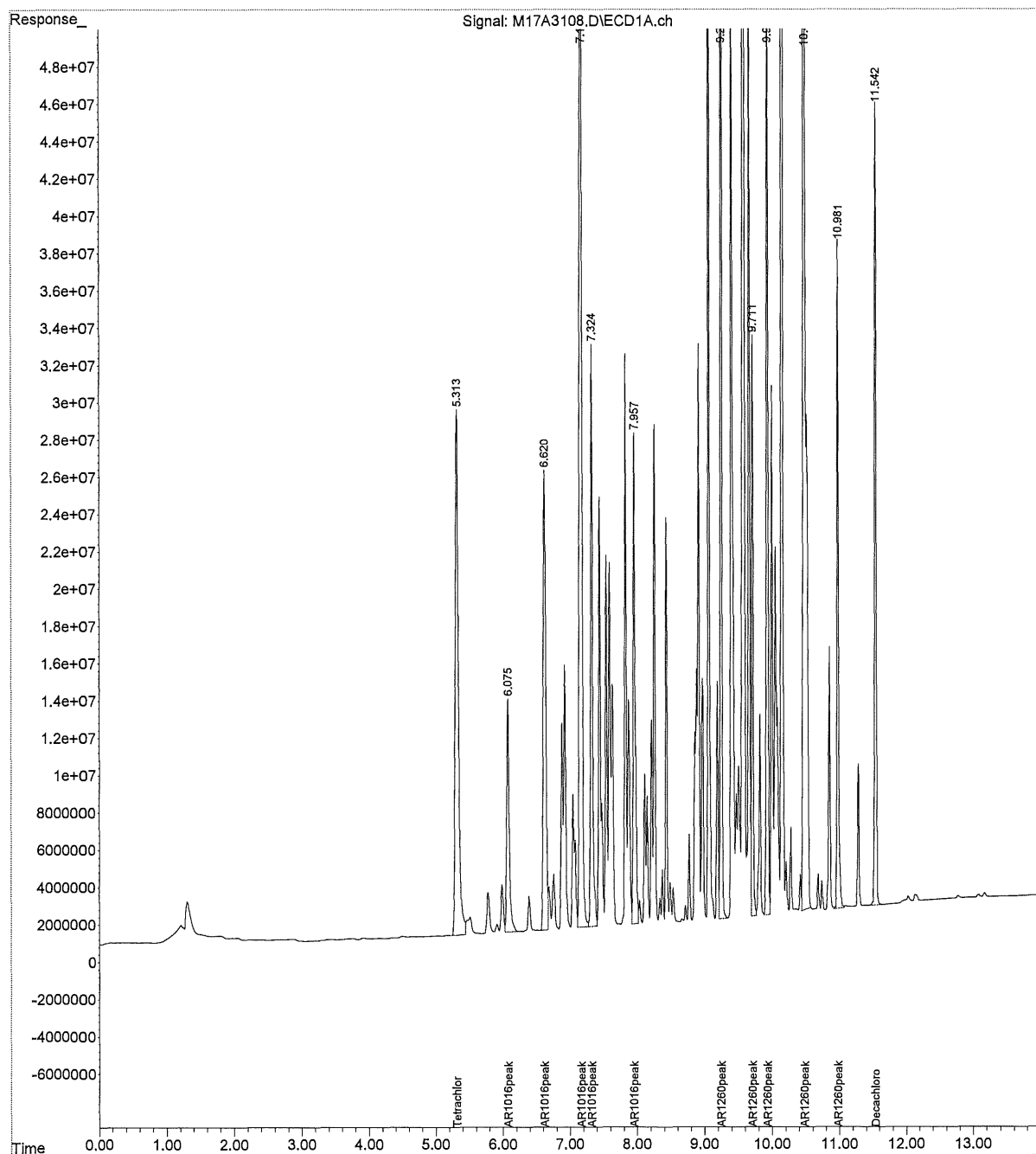
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3108.D Vial: 7
 Acq On : 31 Jan 2017 06:24 pm Operator: als
 Sample : SEQ-CAL7 Inst : ECD 4
 Misc : pcb 2.0 88003 Multiplr: 1.00
 Quant Time: Feb 01 08:20:57 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Tue Jan 31 16:05:31 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3110.D Vial: 9
Acq On : 31 Jan 2017 07:00 pm Operator: als
Sample : SEQ-ICV1 Inst : ECD 4
Misc : pcb icv 87120 Multiplr: 1.00
Quant Time: Feb 01 08:48:58 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.312	211391671	0.018 ug/mL
2) S Decachlorobiphenyl	11.543	168684763	0.019 ug/mL
Target Compounds			
3) AR1016peak1	6.075	84134353	0.473 ug/mL
4) AR1016peak2	6.620	179067686	0.503 ug/mL
5) AR1016peak3	7.169	412524336	0.497 ug/mL
6) AR1016peak4	7.324	162411092	0.498 ug/mL
7) AR1016peak5	7.957	120018647	0.422 ug/mL
8) AR1260peak1	9.247	285646061	0.465 ug/mL
9) AR1260peak2	9.711	109284059	0.475 ug/mL
10) AR1260peak3	9.933	221851162	0.453 ug/mL
11) AR1260peak4	10.481	441589725	0.440 ug/mL
12) AR1260peak5	10.982	112407842	0.440 ug/mL

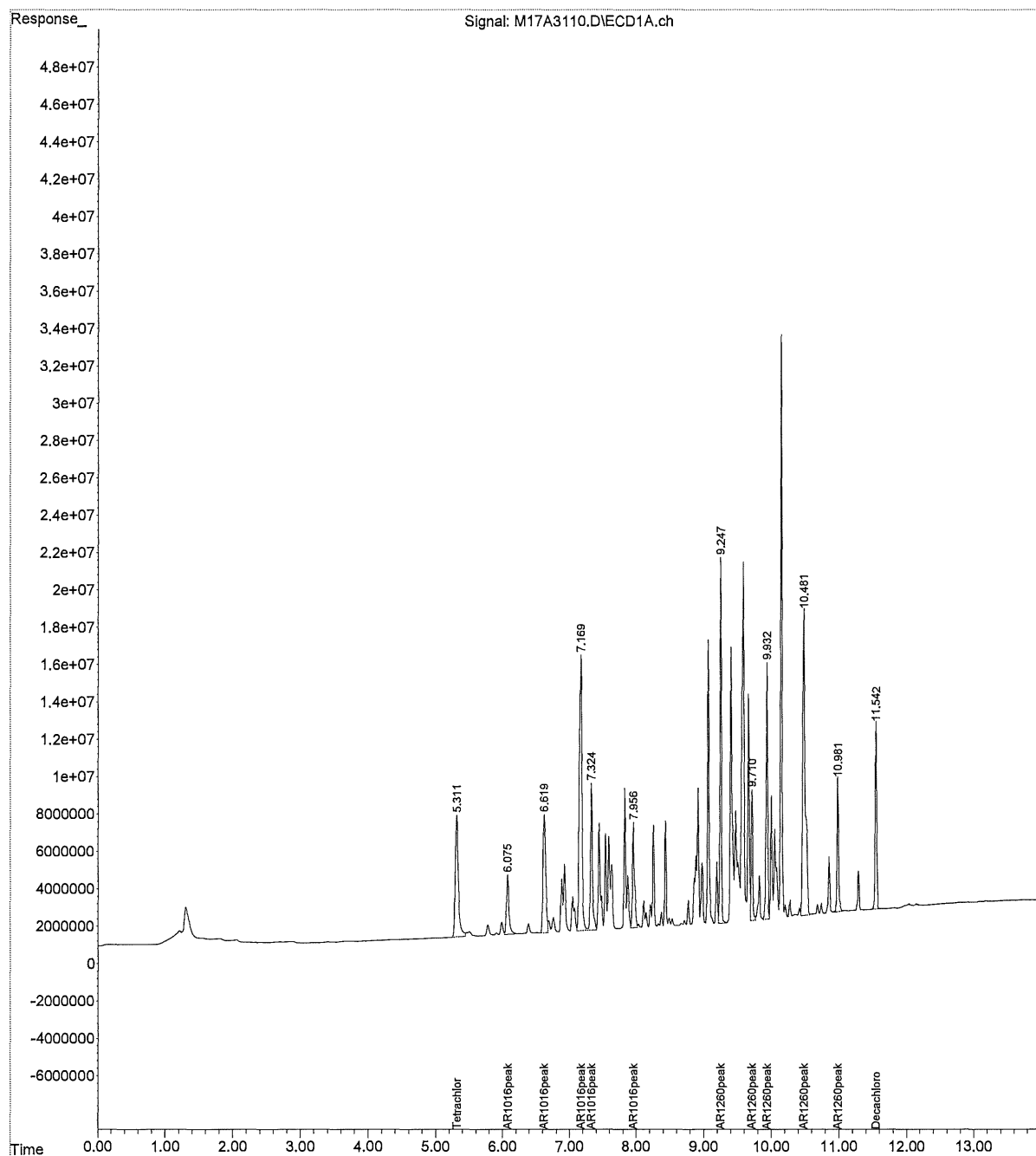
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17A31\M17A3110.D Vial: 9
 Acq On : 31 Jan 2017 07:00 pm Operator: als
 Sample : SEQ-ICV1 Inst : ECD 4
 Misc : pcb icv 87120 Multiplr: 1.00
 Quant Time: Feb 01 08:48:58 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M





Section E:
GC Semivolatiles
SW-846 8082
Sequence QC Sample Raw Data

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Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2533.D Vial: 30
Acq On : 25 May 2017 07:11 pm Operator: ALS
Sample : SEQ-CCVC Inst : ECD 4
Misc : PCB 1.0 94662 Multiplr: 1.00
Quant Time: May 26 08:14:34 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.029	480879337	0.041 ug/mL
2) S Decachlorobiphenyl	11.272	393019208	0.043 ug/mLm3
Target Compounds			
3) AR1016peak1	5.811	186585805	1.080 ug/mL
4) AR1016peak2	6.359	378900383	1.072 ug/mL
5) AR1016peak3	6.919	876860016	1.056 ug/mL
6) AR1016peak4	7.076	346710551	1.070 ug/mL
7) AR1016peak5	7.710	312688785	1.105 ug/mL
8) AR1260peak1	9.007	650706589	1.067 ug/mL
9) AR1260peak2	9.469	263639738	1.136 ug/mLm3
10) AR1260peak3	9.690	523586659	1.065 ug/mL
11) AR1260peak4	10.238	1189379482	1.187 ug/mLm3
12) AR1260peak5	10.740	337231361	1.284 ug/mLm3

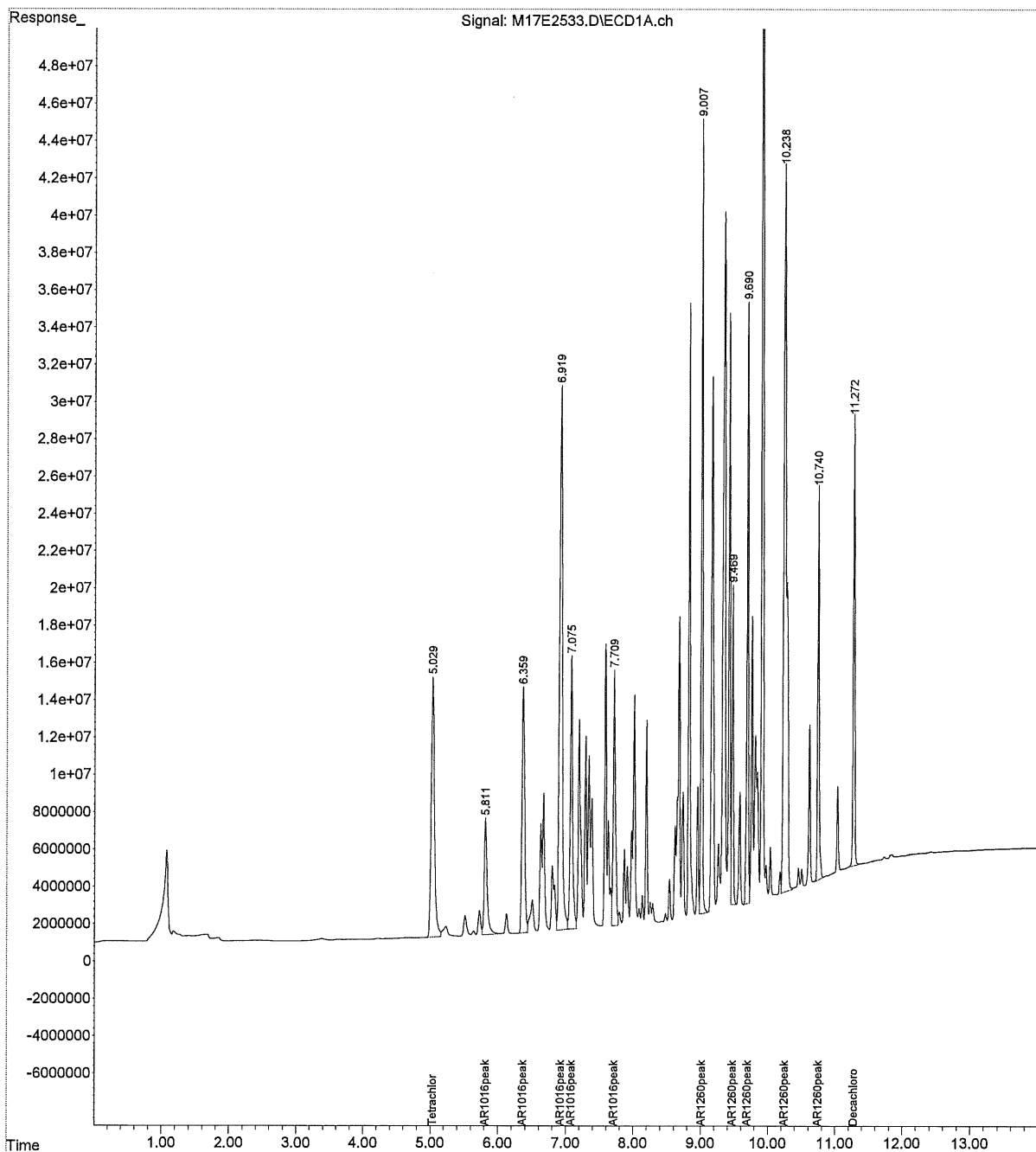
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2533.D Vial: 30
 Acq On : 25 May 2017 07:11 pm Operator: ALS
 Sample : SEQ-CCVC Inst : ECD 4
 Misc : PCB 1.0 94662 Multiplr: 1.00
 Quant Time: May 26 08:14:34 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Evaluate Continuing Calibration Report

Data File : D:\MassHunter\Data\M17E25\M17E2533.D Vial: 30
 Acq On : 25 May 2017 07:11 pm Operator: ALS
 Sample : SEQ-CCVC Inst : ECD 4
 Misc : PCB 1.0 94662 Multiplr: 1.00
 Quant Time: May 26 08:14:34 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev (Min)
1 S	Tetrachloro-m-xylene	0.040	0.041	-2.5	104	-0.02
2 S	Decachlorobiphenyl	0.040	0.043	-7.5	108	-0.03
3	AR1016peak1	1.000	1.080	-8.0	108	-0.02
4	AR1016peak2	1.000	1.072	-7.2	107	-0.02
5	AR1016peak3	1.000	1.056	-5.6	106	-0.02
6	AR1016peak4	1.000	1.070	-7.0	107	-0.02
7	AR1016peak5	1.000	1.105	-10.5	112	-0.02
8	AR1260peak1	1.000	1.067	-6.7	108	-0.03
9	AR1260peak2	1.000	1.136	-13.6	115	-0.03
10	AR1260peak3	1.000	1.065	-6.5	105	-0.03
11	AR1260peak4	1.000	1.187	-18.7	116	-0.03
12	AR1260peak5	1.000	1.284	-28.4#	122	-0.03

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2551.D Vial: 47
Acq On : 26 May 2017 12:24 am Operator: ALS
Sample : SEQ-CCVD Inst : ECD 4
Misc : PCB 0.5 94661 Multiplr: 1.00
Quant Time: May 26 08:19:08 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
QLast Update : Wed Feb 01 08:47:57 2017
Response via : Initial Calibration
DataAcq Meth:ECD4.M

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S Tetrachloro-m-xylene	5.028	244740972	0.021 ug/mL
2) S Decachlorobiphenyl	11.270	177823965	0.020 ug/mLm3
Target Compounds			
3) AR1016peak1	5.811	95456524	0.540 ug/mL
4) AR1016peak2	6.358	194259585	0.546 ug/mL
5) AR1016peak3	6.919	430639133	0.518 ug/mL
6) AR1016peak4	7.075	170371242	0.523 ug/mL
7) AR1016peak5	7.709	149386614	0.526 ug/mL
8) AR1260peak1	9.006	293314182	0.477 ug/mL
9) AR1260peak2	9.468	122138381	0.530 ug/mL
10) AR1260peak3	9.690	226391168	0.462 ug/mL
11) AR1260peak4	10.239	522086185	0.520 ug/mLm3
12) AR1260peak5	10.740	149642528	0.580 ug/mLm3

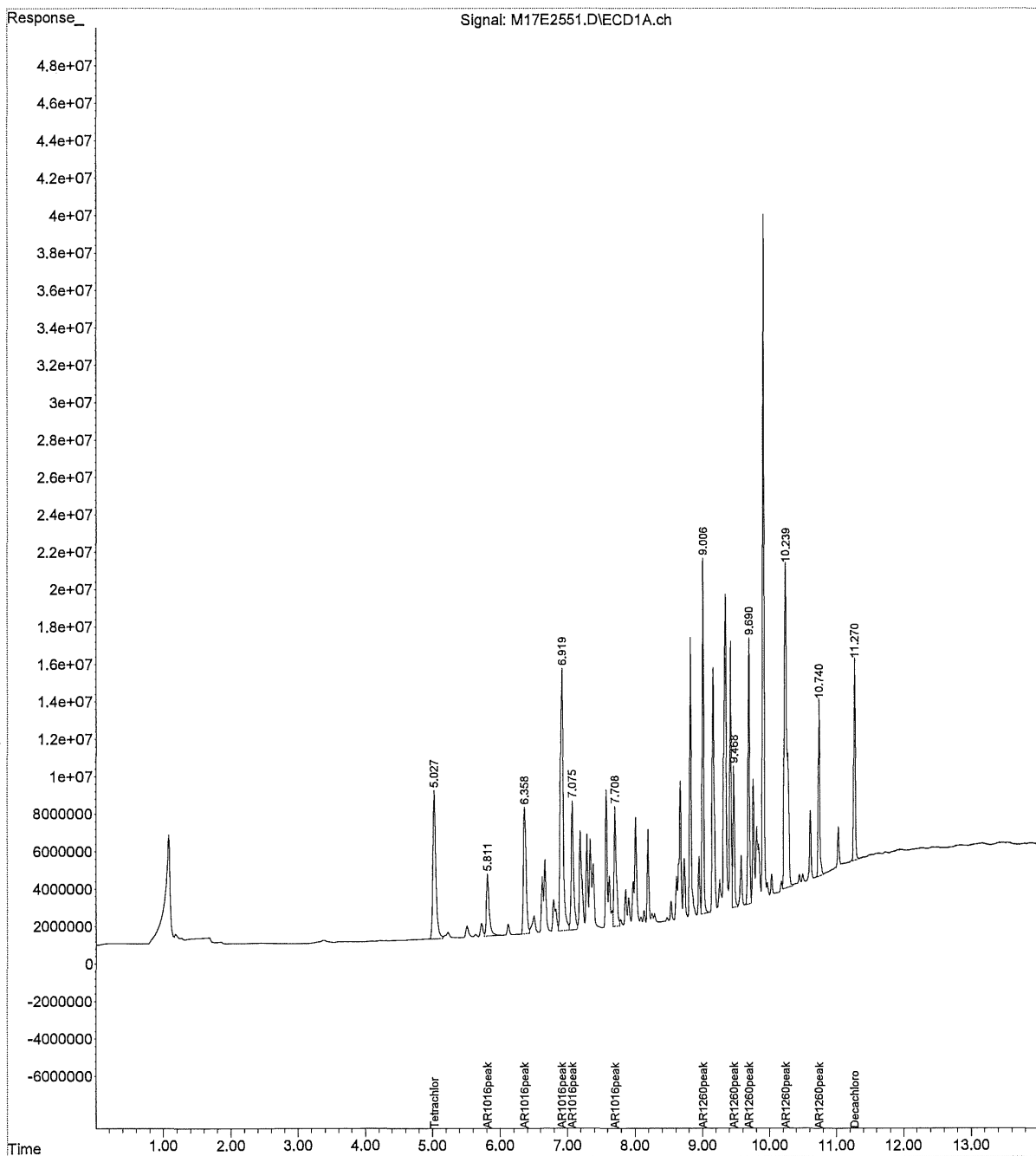
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

Data File : D:\MassHunter\Data\M17E25\M17E2551.D Vial: 47
 Acq On : 26 May 2017 12:24 am Operator: ALS
 Sample : SEQ-CCVD Inst : ECD 4
 Misc : PCB 0.5 94661 Multiplr: 1.00
 Quant Time: May 26 08:19:08 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M



Evaluate Continuing Calibration Report

Data File : D:\MassHunter\Data\M17E25\M17E2551.D Vial: 47
 Acq On : 26 May 2017 12:24 am Operator: ALS
 Sample : SEQ-CCVD Inst : ECD 4
 Misc : PCB 0.5 94661 Multiplr: 1.00
 Quant Time: May 26 08:19:08 2017

Quant Method : D:\MassHunter\GCMS\1\methods\MPCB0131.M
 Quant Title : *1/31/2017-ECD#4-COL M-CLP2-8082/608
 QLast Update : Wed Feb 01 08:47:57 2017
 Response via : Initial Calibration
 DataAcq Meth:ECD4.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev (Min)
1 S	Tetrachloro-m-xylene	0.020	0.021	-5.0	106	-0.02
2 S	Decachlorobiphenyl	0.020	0.020	0.0	99	-0.03
3	AR1016peak1	0.500	0.540	-8.0	107	-0.02
4	AR1016peak2	0.500	0.546	-9.2	108	-0.02
5	AR1016peak3	0.500	0.518	-3.6	104	-0.02
6	AR1016peak4	0.500	0.523	-4.6	104	-0.02
7	AR1016peak5	0.500	0.526	-5.2	105	-0.02
8	AR1260peak1	0.500	0.477	4.6	97	-0.03
9	AR1260peak2	0.500	0.530	-6.0	106	-0.03
10	AR1260peak3	0.500	0.462	7.6	91	-0.03
11	AR1260peak4	0.500	0.520	-4.0	102	-0.03
12	AR1260peak5	0.500	0.580	-16.0	110	-0.03

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



Wet Chemistry

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Wet Chemistry SM 2540 G-1997

Microbac Laboratories, Inc.

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FORM 1: Wet Chemistry SM 2540 G-1997 RESULTS SUMMARY

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Laboratory Report Number: 17E1497

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS

FORM 1

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E1497-01			Instrument: Instrument				
Client ID: OL1589			Prep Date: 5/23/17 4:31 pm				
Matrix: Solid		Analytical Method: SM 2540 G-1997		Calibration: NA			
Batch / Sequence: B103214 /		Analyst: agrieff		Analyzed: 5/23/17 4:32 pm			
Collection Date: 5/16/17 2:34 pm		Dilution: 1		File ID: 052317 - PSOLID_2540Bei-01			
		Units: wt%		% Solids: 99.46			
Analyte		CAS Number	Result	MDL	RL	Flag	Qualifier
Percent Solids		E-10151	99	0.050	0.10		

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E1497-02			Instrument: Instrument				
Client ID: OL1590			Prep Date: 5/23/17 4:31 pm				
Matrix: Solid		Analytical Method: SM 2540 G-1997		Calibration: NA			
Batch / Sequence: B103214 /		Analyst: agrieff		Analyzed: 5/23/17 4:32 pm			
Collection Date: 5/16/17 2:39 pm		Dilution: 1		File ID: 052317 - PSOLID_2540Bei-01			
		Units: wt%		% Solids: 99.40			
Analyte		CAS Number	Result	MDL	RL	Flag	Qualifier
Percent Solids		E-10151	99	0.050	0.10		

Microbac Laboratories, Inc. - Chicagoland

Laboratory ID: 17E1497-03				Instrument: Instrument			
Client ID: OL1591				Prep Date: 5/23/17 4:31 pm			
Matrix: Solid		Analytical Method: SM 2540 G-1997		Calibration: NA			
Batch / Sequence: B103214 /		Analyst: agrieff		Analyzed: 5/23/17 4:32 pm			
Collection Date: 5/16/17 2:50 pm		Dilution: 1		File ID: 052317 - PSOLID_2540Bei-02			
		Units: wt%		% Solids: 99.84			
Analyte		CAS Number	Result	MDL	RL	Flag	Qualifier
Percent Solids		E-10151	100	0.050	0.10		



Laboratory Report Number: 17E1497

Client Project ID: OL - OL

CERTIFICATE OF ANALYSIS
FORM 1

Flags and Qualifiers

B = Detected in the associated method Blank at a concentration above the routine RL
b = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits



FORM 6:
Wet Chemistry
SM 2540 G-1997
Duplicates

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Laboratory Report Number: 17E1497
Client Project ID: OL - OL

Duplicate
Form 6

Parent ID: 17E1469-09		Calibration:		Method: SM 2540 G-1997	
Instrument: Instrument		File ID: 052317 - PSOLID_2		Dil: 1	
Sample ID: B103214-DUP1		Batch: B103214		Matrix: Solid	
				Units: g	
Analyte	Parent	Duplicate	RPD	RPD Limit	Q
Percent Solids	23.1	23.6	1.96	20	

* - Exceeds RPD Limit

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**FORM 9:
Wet Chemistry
SM 2540 G-1997
MDL/MRLs**

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Laboratory Report ID: 17E1497

METHOD DETECTION AND REPORTING LIMITS
FORM 9

Client Project ID: OL - OL

Instrument:		Method: SM 2540 G-1997	
Matrix: Solid		Version: NONE	
Analyte	MDL	MRL	Units
Percent Solids	0.050	0.10	wt%



Section A:
Wet Chemistry
SM 2540 G-1997
Batch / Sequence Raw Data

Microbac Laboratories, Inc.

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Microbac Laboratories - Chicagoland Division

Percent Solids

Oven ID:

Oven Temp Verified: ☒ * (104 ±1 °C)

Date/Time Oven

In	5/23/2017 17:02	5/24/2017 10:03
Out	5/24/2017 9:30	5/24/2017 10:21

Date/Time Desiccator

In	5/24/2017 9:30	5/24/2017 10:21
Out	5/24/2017 10:00	5/24/2017 10:56

Test Code:

Balance ID:

Balance Calibration Verified: ☒

Date/Time:

Analyst:

Units:

Sample ID	Sample Type	Cont ID	Boat ID	Boat Weight	Boat + Sample Weight	Weight after 104	Weight after 104	Weight after 104	Weight after 104	Prior to Final Weight	True Final Weight	Final - Initial Weight of Beaker	Final Result (pct)
17E1266-06	SAMP	d	1	1.2980	11.5579	10.2990	10.2993			10.2990	10.2993	9.0013	87.7328
17E1266-07	SAMP	d	2	1.2876	12.2609	10.6664	10.6671			10.6664	10.6671	9.3795	85.4757
17E1266-08	SAMP	d	3	1.2897	12.3506	10.6287	10.6323			10.6287	10.6323	9.3426	84.4651
17E1314-02	SAMP	a	4	1.2948	11.6552	1.6804	1.6813			1.6804	1.6813	0.3865	3.7306
17E1314-08	SAMP	a	5	1.2878	11.5588	1.4414	1.4419			1.4414	1.4419	0.1541	1.5003
17E1314-09	SAMP	a	6	1.2932	11.4221	3.5742	3.5716			3.5742	3.5716	2.2784	22.4941
17E1374-01	SAMP	a	7	1.2866	11.9060	1.7548	1.7551			1.7548	1.7551	0.4685	4.4117
17E1395-02	SAMP	a	8	1.2868	11.9072	1.6867	1.6873			1.6867	1.6873	0.4005	3.7710
17E1395-08	SAMP	a	9	1.2962	11.7462	1.4527	1.4539			1.4527	1.4539	0.1577	1.5091
17E1395-09	SAMP	a	10	1.3027	11.7652	3.7110	3.7134			3.7110	3.7134	2.4107	23.0413
17E1469-02	SAMP	a	11	1.2849	11.4548	1.6237	1.6250			1.6237	1.6250	0.3401	3.3442
17E1469-08	SAMP	a	12	1.2838	12.0990	1.4378	1.4391			1.4378	1.4391	0.1553	1.4359
17E1469-09	SAMP	a	13	1.2935	11.6723	3.6930	3.6950			3.6930	3.6950	2.4015	23.1385
B103214-DUP1	SAMP	a	14	1.2957	12.2769	3.8848	3.8868			3.8848	3.8868	2.5911	23.5958
17E1480-01	SAMP	a	15	1.2921	12.8031	4.0116	4.0148			4.0116	4.0148	2.7227	23.6530
17E1496-01	SAMP	a	16	1.3013	11.4004	11.0355	11.0319			11.0355	11.0319	9.7306	96.3512
17E1496-03	SAMP	a	17	1.2974	12.9651	12.8866	12.8872			12.8866	12.8872	11.5898	99.3323
17E1497-01	SAMP	a	18	1.3044	11.3413	11.2873	11.2870			11.2873	11.2870	9.9826	99.4590
17E1497-02	SAMP	a	19	1.3020	12.1533	12.0892	12.0880			12.0892	12.0880	10.7860	99.3982
17E1497-03	SAMP	a	20	1.2859	11.7279	11.7110	11.7110			11.7110	11.7110	10.4251	99.8382
	SAMP												
	SAMP												
	SAMP												
	SAMP												
	SAMP												
	SAMP												
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PREPARATION BENCH SHEET

B103214

Microbac Laboratories, Inc. - Chicagoland

Matrix: Solid

Prepared using: Wet Chemistry - PSOLID_2540B_PR

Printed: 6/19/2017 8:28:05AM

Lab Number	Prepared	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	Comments
17E1266-06 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1266-07 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1266-08 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1314-02 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1314-08 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1314-09 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1374-01 PSOLID_2540B	05/23/2017 16:31	1	1				Added these test on 05/19/17 per client request.
17E1395-02 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1395-08 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1395-09 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1469-02 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1469-08 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1469-09 PSOLID_2540B	05/23/2017 16:31	1	1				
17E1480-01 PSOLID_2540B	05/23/2017 16:31	1	1				

Spiking Witnessed By _____ Date _____

Preparation Reviewed By _____ Date _____

Extracts Received By _____ Date _____

PREPARATION BENCH SHEET

B103214

Microbac Laboratories, Inc. - Chicagoland

Matrix: Solid

Prepared using: Wet Chemistry - PSOLID_2540B_PR

Printed: 6/19/2017 8:28:05AM

Lab Number	Prepared	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	Comments
17E1496-01 PSOLID_2540B	05/23/2017 16:31	1	1				ICOC ICOC
17E1496-03 PSOLID_2540B	05/23/2017 16:31	1	1				ICOC ICOC
17E1497-01 PSOLID_2540B	05/23/2017 16:31	1	1				ICOC ICOC
17E1497-02 PSOLID_2540B	05/23/2017 16:31	1	1				ICOC ICOC
17E1497-03 PSOLID_2540B	05/23/2017 16:31	1	1				ICOC ICOC
B103214-DUP1	05/23/2017 16:31	1	1		17E1469-09		

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Spiking Witnessed By _____ Date _____

Preparation Reviewed By _____ Date _____

Extracts Received By _____ Date _____



SAMPLE CUSTODY CHAIN - IDEM OFFICE OF LAND QUALITY

State Form 42091 (R2/10-06)

17E1497

Please Send Report to:

IDEM
OLQ Chemistry Section
Attn: QA Officer
MC 66-20 IGCN N1101
100 N Senate Avenue
Indianapolis, IN 46204-2251
www.idem.IN.gov

(1) SAMPLE CERTIFICATION - I certify the following samples were collected by me or in my presence:	Print Name: <u>George R. Roberts</u>
Sample Date(s): <u>May 16, 2017</u>	Signature: <u>George R. Roberts</u>

(2A-2C) SAMPLE INFORMATION	(2D) COUNTS	(2E-2F) ANALYSES REQUESTED	(2G) COMMENTS	(2H-2J) DATE & TIME							
				Date	Time	AM	PM				
IDEM Sample Number	Matrix or Sample Type	Glass Bottles	Plastic Bottles	40 ml Vials	Other						
OL1589/001-1	Solid							5/16/17	2:34		✓
OL1590/001-2	Solid							5/16/17	2:39		✓
OL1591/001-3	Solid							5/16/17	2:50		✓

(3) REQUIRED TURNAROUND TIME (with full documentation)			
30 days	14 days	7 days	2 days

(4) COMMENTS
2.6 -1.6

FOR LABORATORY USE ONLY:	
Cooler Temp: 10°C	Sample Condition: 07

(5) TRANSFER OF CUSTODY - I certify that I received the above samples.		Date	Time
Relinquished by: <u>George R. Roberts</u>	Received by: <u>Kristen Gehlbach</u>	5-22-17	2:00 AM/PM
Relinquished by: <u>Kristen Gehlbach</u>	Received by: <u>William J. Miller</u>	5/22/17	1:54 AM/PM
(6) LABORATORY RECEIPT OF SAMPLES		5-23-17	7:00
I certify that I received the above samples. After recording these samples in the official logbook, they will remain in the custody of competent lab personnel or be secured in a locked area at all times.			
Received by: <u>Nicole Reinwater</u>	Laboratory: <u>Microbac</u>	Date	Time
Address:		5-23-17	1031 PM

(7) DISTRIBUTION: PINK COPY - IDEM Sampler YELLOW COPY - Lab (Keep)
Size Reduction performed @ Lab 5-23-17 NR#3

WHITE COPY - Lab (To be Returned to IDEM with Data Package)
William J. Miller
Nicole Reinwater

10/06 Revision
5-23-17 7:00
5-23-17 11:31
5-23-17/1031

Internal COC Log

Storage Location: Sample Receipt

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